NOV -6 1951

B 329023

NEW EQUIPMENT DIGEST

A Penton Publication

November, 1951

Volume 16—Number 11

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CHECK AND PASS ALONG

✓	NAME	See No.

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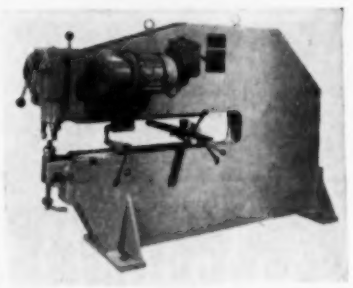
Use Inquiry Slips—Pages 8 and 80

EQUIPMENT • MATERIALS • PROCESSES • DESIGNS • APPLICATIONS • LITERATURE

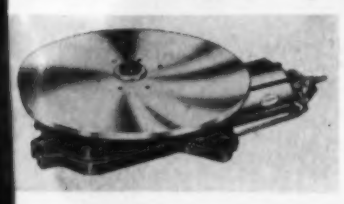
METAL FABRICATING MACHINE
for straight and circle cutting



Increased throat clearance of 48-in. on improved model D-3 Pullmax metal fabricating machine makes for easier insertion and handling of bulky material. With increase in clearance, 9/32-in. capacity machine is equipped with longer cutting tools. Machine features quick-locking devices on circle and straight cutting attachments, making possible rapid setup without tools or wrenches. Inch graduations on lower guide rail speed setup time. It is capable of beading, folding, slot cutting, nibbling and louvering by changing tools and attachments. Made by **American Pullmax Co.**, 2629 N. Western Ave., Chicago 47, Ill.

▲ For more details circle **NED-8500** on enclosed inquiry slip ▲

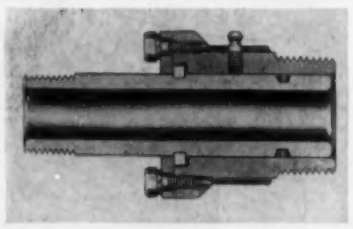
DIAL FEED TABLE
indexes loads up to 1000 lb



Electrically controlled model BRET-22 air-powered rotary work feeder with 22-in. diameter table top can be set to index 4, 6, 9, 12, 18, or 36 stations with loads up to 1000 lb. Cushioned air power gently eases table in position and locks it by means of air cylinder. Feeder is powered by air motor complete with built-in Electroaire directional valve and speed controls. Valve is controlled by 12-v solenoid control units. Table top is easily removed for mounting jigs, fixtures or oversize tables. Made by **Bellows Co.**, 230 W. Market St., Akron 9, O.

▲ For more details circle **NED-8501** on enclosed inquiry slip ▲

SWIVEL PIPE JOINTS
for liquid loading, unloading lines



Providing 360-degree rotation around axis of joint, swing joint has long bearing surface to support weight of normal piping. When used in pairs with 90-degree ell, joint gives up-and-down and side-to-side action in tank car or truck loading and unloading lines. Arrangement for counterbalancing of supported piping is provided. Sizes available range from ⅜ to 3 in. for threaded connections and from 4 to 12 in. with flanged connections. Sealing is by O-ring in recess in sleeve of joint. Special rings are available for handling gasoline, fuel oil and other liquids at any pressure to 100 psi, or to 500 psi in smaller sizes. Made by **Barco Mfg. Co.**, Dept. J-11, 1801 W. Winnemac Ave., Chicago 40, Ill.

▲ For more details circle **NED-8502** on enclosed inquiry slip ▲

MACHINE TOOL COOLANT
for heavy duty work uses

Capable of withstanding high heat for long periods, Triple-Chip heavy duty Anti-Weld soluble cutting oil adheres to tool, carries through to cutting edge, mixes readily with water and resists contamination. Tenacity of oil and its maintenance of high heat transfer of water minimizes chip welding to tool. Solution resists rust, is noninjurious to skin, oderless, smokeless and noncorrosive. It will maintain its properties in storage. Made by **Motch & Merryweather Machinery Co.**, 717 Penton Bldg., Cleveland 13, O.

▲ For more details circle **NED-8503** on enclosed inquiry slip ▲

HIGH SPEED CAMERA
records mechanical, electrical data simultaneously on single film strip

Modification of Kodak high speed camera permits both mechanical and electrical aspects of a subject to be recorded simultaneously on same film. Change consists of addition of second lens to camera to record images on tube of cathode ray oscillograph through back of film, while mechanical aspects of subject are photographed on front. Complete picture of behavior of electro-mechanical devices is obtained. Correlation with strain, acceleration, vibration and other signals fed to oscillograph is permitted.

Film speed, as indicated by edge-marking argon lamp, provides time base if necessary. Exposure of oscillograph trace is continuous and does not interfere with subject matter being photographed. Oscilloscope providing total accelerating potential of 10 kv or higher is recommended. Modification made by **Eastman Kodak Co.**, Industrial Photographic Div., Dept. E, 343 State St., Rochester 4, N. Y.

▲ For more details circle **NED-8504** on enclosed inquiry slip ▲

MOTOR DRIVEN TROLLEY
for hoists has fluid coupling

Smooth acceleration and elimination of torsional vibration are features of motor driven hoist trolley which incorporates fluid coupling type transmission. Since the motor starts without load and comes up to near full speed before starting the load, current inrush is minimized and economical operation is assured. Because of smooth starting, even ladles of molten metal or containers of liquids can be handled without spilling. Rapid deceleration, stopping or reversal can be effected without jerk by merely reversing the motor. Power driven trolleys in capacities from ⅛ to 12 tons are available with fluid coupling drive. Made by **Yale & Towne Mfg. Co.**, Philadelphia Div., Dept. M-1, Roosevelt Blvd. & Haldeman Ave., Philadelphia 15, Pa.

▲ For more details circle **NED-8505** on enclosed inquiry slip ▲

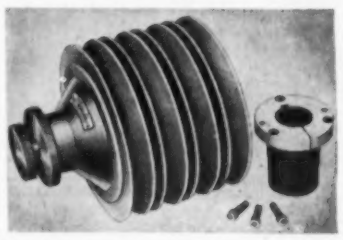
ELECTRIC MEASUREMENT DEVICE
combines an impedance bridge with an amplifier-oscillator

Measurement of resistance from 1 milliohm to 11 megohms, capacitance from 1 micromicrofarad to 1100 mfd and inductance from 1 microhenry to 1100 henrys is possible with model 250-C Universal impedance bridge and companion model 855-A amplifier-oscillator. Instrument also measures storage factor of inductors (Q) from 0.02 to 1000 and dissipation factor of capacitors (D) from 0.001 to 1.0.

Wire wound resistors of 0.05-per cent are used in bridge arms. Dekadial scale, having 11,000 graduations, controls double decade and rheostat combination. Housed in portable aluminum cabinet are reference standards, 1000 cycle tone generator, galvanometer and four replaceable flashlight cells to power bridge. Amplifier-oscillator which fits into battery compartment converts bridge to 115-v ac operation and provides plug-in frequency selection and tuning eye for visual null indication. Made by **Brown Electro-Measurement Corp.**, Dept. NED-3, 4635 S. E. Hawthorne Blvd., Portland 15, Oreg.

▲ For more details circle **NED-8506** on enclosed inquiry slip ▲

BELT DRIVING SHEAVE
in variable and constant speed types



Features incorporated in improved Maxi-Pich sheave include an interchangeable spilt-tapered bushing which, when drawn into sheave, locks securely to prime mover shaft. When prime mover shaft has worn slightly undersize bushing locks in tight, minimizing wobble or vibration. Added features are maximum pitch diameter variation and constant belt alignment. Sheave is produced in equal-size stationary and motion control types, hand or mechanically operated, without affecting space limitations. Made by **V-Belt Engineering Co.**, Box 8513, Richmond, Va.

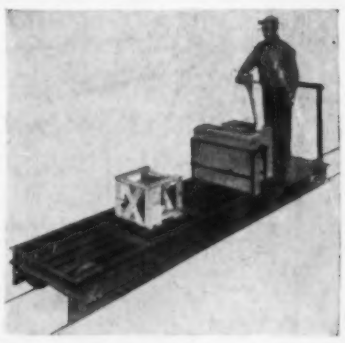
▲ For more details circle **NED-8507** on enclosed inquiry slip ▲

DYE BATH THERMOMETER
case has vapor-tight seal

Large, uniform dial scale for easy temperature measurement in range of 40 to 220° F is central feature of "lifetime" dial thermometer designed for modern textile dyeing and finishing methods. A stock item with standard 10-ft tubing, thermometer is available with either plain neck bulb for open tank mounting or union neck bulb for screw-type connection. Corrosion-resistant aluminum alloy case houses stainless steel movement, and bulb and tubing are type 316 stainless. Case's vapor-tight seal protects instrument against corrosive vapors and liquids. Made by **Foxboro Co.**, 134 Neponset Ave., Foxboro, Mass.

▲ For more details circle **NED-8508** on enclosed inquiry slip ▲

TRANSFER CAR
has roller conveyor carrying bed



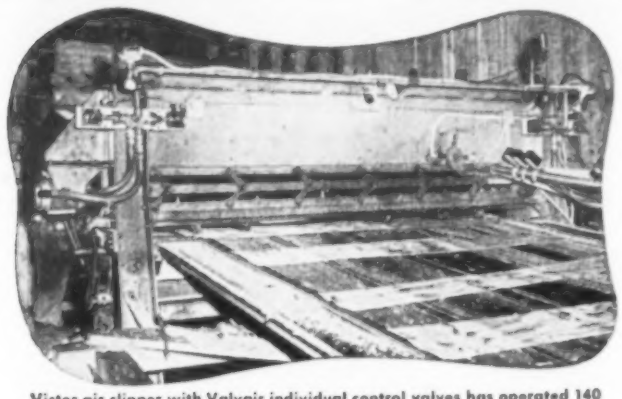
Loading and unloading of this flanged-wheel, track-mounted transfer car is facilitated by carrying bed which is section of roller conveyor. Battery-operated, car also has operator's platform. A 12.5-v battery drives a 12.5-v dc electric motor. Operator controls car movement by forward-reverse stop pushbutton station on top of lever arm. Speed is controlled by moving arm. Made by **Logan Co.**, 216 Cabel St., Louisville 6, Ky.

▲ For more details circle **NED-8509** on enclosed inquiry slip ▲

PLASTIC PIPE CEMENT
available in transparent white

Plastic Plasgon adhesive and pipe joint cement formerly available only in black can now be obtained in transparent white with the same strength and adhesive qualities. Practical where vibration is a factor, cement is currently used in automotive, aircraft and machinery industries, in textile mills to fasten loom pads and in plumbing and oil pipe line businesses. It remains flexible, absorbs shocks and is not dislodged by vibration. Impervious to water, gasoline, kerosene, glycol, oil and steam, cement will resist heat up to 350° F as well as considerable pressure. Made by **Samuel Cabot, Inc.**, 52 Oliver Bldg., Boston, Mass.

▲ For more details circle **NED-8510** on enclosed inquiry slip ▲



Victor air clipper with Valvair individual control valves has operated 140 times per minute 24 hours a day for over a year with no maintenance.

VALVAIRS Serve Dependably and Long on Lumber and Plywood Machinery

Again and again, lumber companies re-order Valvair air control valves. Valvair users report many years of service without maintenance. Our unique "OU" packer (the only wearing part) combines the best features of O-ring and self-sealing U-cup designs. No metal seats to deteriorate. If replacement of the valve *does* become necessary, the piping is not disturbed; a few minutes are enough.

IMPORTANT: Valvair design protects against flying sawdust and other erosive particles. Let us explain.

VALVAIR CORPORATION • 454 Morgan Avenue, Akron 11, Ohio
AFFILIATE: SINCLAIR-COLLINS VALVE CO.

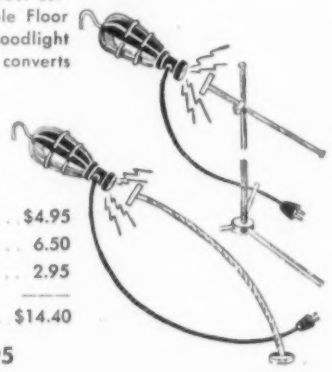
Rely Upon Valvair — 2-WAY — 3-WAY — 4-WAY

For more details circle NED-8513 on enclosed inquiry slip

NEW MAGNETIC LIGHT

Solves *all* Your Working Light Problems

Special combination offer gives you Droplite, Floor Stand, Bench Stand. Buy all 3 nationally advertised high quality products as illustrated for this bargain price. Get a genuine MAGNETIX 25' heavy rubber cable 110V. Droplite with powerful ALNICO permanent magnet—gives you close, any-angle lighting—sticks to any iron or steel surface. Big 5½ foot adjustable Floor Stand converts Droplite to floodlight —15" flexible Bench Stand converts Droplite to bench light.



Save 45%—
Special Comb. Price

Droplite	$4.95
Floor Stand	6.50
Bench Stand	2.95
Total	$14.40

Your Cost Only $7.95

ORDER NOW—send check, cash or M.O. with order. All merchandise guaranteed. Combination offer only $7.95—Droplite alone $4.95.

MAGNETIX, INC.
DEPT. T
101 S. Van Brunt Englewood, N. J.

For more details circle NED-8514 on enclosed inquiry slip

Plant Superintendent Says:*

"LUG-ALL HOIST IS ONE TOOL WE WOULD HATE TO DO WITHOUT"

Save man hours and get maintenance jobs done e-a-s-i-e-r with a LUG-ALL HOIST. Weighs only 8½ pounds, yet lifts, lowers or pulls 1½ tons a distance of 7½ feet . . . ¾ ton a distance of 15 feet.

The LUG-ALL is extremely useful in "tight" places. Pulley block permits working around corners (see several types of rigging in line drawings surrounding this paragraph). 20" long safety handle begins to bend before any part approaches its tested breaking point. No brakes to slip. Flexible, pre-formed aircraft cable made to Army-Navy specifications. Made of non-rusting materials. Removable handle permits use of hoist as tamper-proof rig or load binder. Hundreds of uses around the plant. Guaranteed for one year. Write for FREE Bulletin No. 107, or order your LUG-ALL WINCH HOIST today.

* Name on request.

REGULAR LUG-ALL	HEAVY DUTY LUG-ALL
Handle bends at 50% overload	Handle bends at 100% overload
$33.25	**$35.25**
FOB FACTORY Lifts ¾ ton 15 ft. 1½ tons, 7½ ft.	FOB FACTORY Lifts ¾ ton 10 ft. 1½ tons, 5 ft.

ORDER YOUR LUG-ALL TODAY
FULL INFORMATION IN BULLETIN NO. 107 ®

LUG-ALL WINCH-HOISTS SLINGS LONGLIFTS — 1½ TONS

THE LUG-ALL COMPANY Wynnewood 6, Pa.

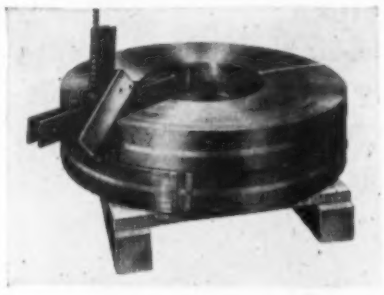
For more details circle NED-8515 on enclosed inquiry slip

TO SPEED YOUR INQUIRY

Something new has been added to the self-mailing inquiry slips which are enclosed in this issue for your convenience in obtaining complete information about any new or advertised products. We are asking that those of you who use the inquiry slip check off the invested capital rating of your company as listed in Dun & Bradstreet. Ratings of $1,000,000 or over, $500,000 to $1,000,000, $200,000 to $500,000, $75,000 to $200,000 and under $75,000 are listed. All you need to do is check the proper square when you fill in the rest of the coupon. This will expedite the handling of your inquiry and assure that you receive the desired information promptly.

A. N. Gregg
EDITOR

STRIP METAL COIL GRAB handles coils up to 2000 lb.



Crane lifting of heavy strip metal coils into vertical position from pallets is facilitated by 2000-lb capacity coil grab. Prong tapered to fit between coils in space made by bands is positioned while opposite jaw is placed in center of coil. As crane lifts, grab automatically adjusts to coil size and tapered prong slides between the coils. Grab then turns to allow coil to move into vertical position, locked by its own weight. Grabs for lifting in excess of 2000 lb are available on special order. Finish is black oxide with red enamel trim. Made by **Dixon Research, Inc.**, Materials Handling Div., 2302 23rd Ave., Rockford, Ill.

For more details circle NED-8516 on enclosed inquiry slip

WIRING HARNESS made ready for installation

Intricate wiring systems incorporated in many electronic, electrical and mechanical devices can be made at lower production cost, higher production rate and with less material by use of wiring harness. Photo shows typical wire harness in process of assembly. The complex harness, completely assembled, finished with terminals, shielded leads and jacks, terminals and plugs properly attached, can be made ready for installation. Assemblies are fabricated by personnel trained in wire harness assembly and design. Service offered by **Runzel Cord & Wire Co.**, 4725 W. Montrose Ave., Chicago 41, Ill.

For more details circle NED-8517 on enclosed inquiry slip

ACEC

Integral Horsepower Electric Motors ¾-200 hp.

NOW AVAILABLE from STOCK in NEW YORK CHICAGO KANSAS CITY NEW ORLEANS DALLAS and LOS ANGELES Warehouses

Strictly conform to NEMA FRAMES AND SPECIFICATIONS. On hand now, 1-phase and 3-phase: Open Drip Proof Motors, Totally Enclosed Fan Cooled Motors, 4 types of Pump Motors, and Adjustable Speed Schrage Motors. All ACEC motors fully guaranteed. Service available from 232 distributors and service shops. Write, wire, or telephone your requirements.

BELGIAN ELECTRIC SALES CORP.
One E. 53rd St., New York 22, N.Y. PLaza 8-3105
Sole Representatives of
ATELIERS de CONSTRUCTIONS ELECTRIQUES de CHARLEROI
Branches and Representatives in Principal Cities

For more details circle NED-8518 on enclosed inquiry slip

NEW PORTMAN "century"

OPTICAL COMPARATOR
Vertical Model C-100

Latest accomplishment of a progressive producer with long, broad experience in micro-projection optics . . .
FEATURING:

1) "Super-Light" condenser lens, power cooled.
2) Portman "Ciptar-Scope" precision optical system provides maximum illumination with sharpest definition . . for large optical capacity.
3) Focal length average in excess of 3 inches.
4) Magnifications: 10x, 20x, 25x, 31¼x, 50x, 62½x and 100x are standard.
5) Large 16-inch diameter "Sight-Line" screen.
6) New "Swing-Away" stage (removable) also provides helix angle positioning.
7) Rugged chassis assures permanent alignment.

The Portman "Century" is the ideal optical comparator for the tool room, for gage inspection and for production shop work. Write or wire for details.

Territories open for agents with gage and measuring equipment sales experience.

PORTMAN INSTRUMENT COMPANY
8 Manhasset Avenue, PORT WASHINGTON, N. Y.

For more details circle NED-8519 on enclosed inquiry slip

BROWNING

First Again!

BROWNING SHEAVES *with* "UNBREAKABLE" MALLEABLE IRON

SPLIT TAPER BUSHINGS

WRITE FOR THE NAME OF THE BROWNING DISTRIBUTOR NEAR YOU

BROWNING MANUFACTURING COMPANY
MAYSVILLE, KENTUCKY, U. S. A.

For more details circle NED-8520 on enclosed inquiry slip

3 HI-SPEED AUTOMATIC PRESSES

5 TON 8 TON 12 TON

Write DI MACHINE CORP.
2701 W. IRVING PARK RD. CHICAGO 18, ILLINOIS

For more details circle NED-8521 on enclosed inquiry slip

Lumenite OFFERS DEPENDABLE AUTOMATIC CONTROLS

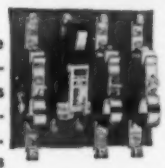
LUMENITE LIQUID LEVEL CONTROLS

Electronic action maintains and/or signals exact levels to 1/100 in. Floatless—no moving parts—sanitary—trouble free—no upkeep. For any liquid in any container—hot or cold—pressure or open. Easy installation. Write for detailed bulletin L-143.

LUMENITE TIMING CONTROLS

Complete line of industrial operation timers—manual or automatic reset. Time switches and timers. Improved and simplified construction. Write for bulletin T-143

LUMENITE MAGNETIC CONTACTORS



Electrically operated and held switches for heavy loads. Work with Electronic Level or Time Controls.

Reversing switches—transfer switches. New noiseless operation. Write for bulletin C-143

Lumenite Electronic Co.
407 S. Dearborn St., Chicago 5, Ill.

For more details circle NED-8522 on enclosed inquiry slip

A MULTI PURPOSE WORK HOLDING and POSITIONING TOOL Made Specially for WELDING

•

No. 37A Twinner Vise and Angle Plates

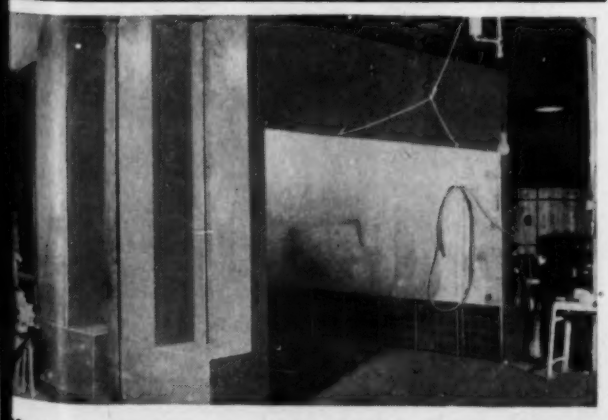
Fitted with four standard No. 3 size vises and 24" top plates this tool provides a holding jig and positioner for thousands of welding jobs.

Reduces set-up time, helps the welder do more accurate work. Saves the expense of special jigs.

THE EDMANDS CO., 228 Aborn St., Providence 3, R. I.

For more details circle NED-8523 on enclosed inquiry slip

EVER HEAR OF A DOWN-DRAFT BOOTH WITHOUT A PIT?



IT'S EASY WITH THIS ECONOMICAL, EFFECTIVE PAINT ARRESTOR INSTALLATION!

When floor construction made a down-draft booth for painting small industrial equipment items impractical, this manufacturer solved the problem with RP Paint Arrestors. And . . . he now has the fourth installation of this type. Many other installations are possible with versatile RP Paint Arrestors.

WRITE FOR FREE BOOKLET

Helpful, informative suggestions to solve your paint spray booth problems. Write today.

RESEARCH PRODUCTS CORPORATION
Dept. N, Madison 10, Wisconsin

RP . . . PRODUCTS OF RESEARCH

For more details circle NED-8524 on enclosed inquiry slip

CONVEYOR LINE DEFLECTOR aids truck and car loading

Attached to platform end of telescoping portable conveyor, deflector guides cartons off permanent belt conveyor and shunts them at 90 degrees onto portable conveyor extending into truck, trailer or box car. Only labor required is for stacking cartons as they are delivered to stacking point. Both right and left hand deflectors are supplied to facilitate removal to either side. Made by **Wilkie Co.**, 5521 Arch St., Philadelphia 39, Pa.

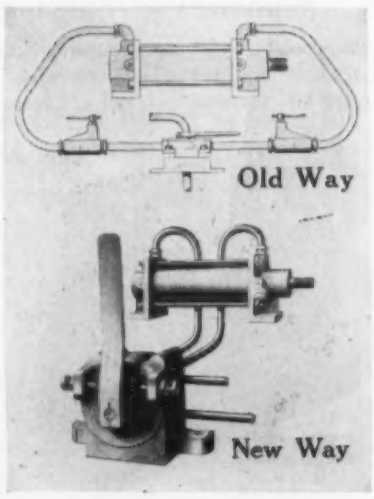
For more details circle NED-8525 on enclosed inquiry slip

LOW VOLTAGE TRANSFORMER output is variable from 0 to 13 v

Adjustable source of low voltage 60-cycle power is offered by type 71-A Variac transformer for use on 115-v line. Secondary winding is completely isolated, and insulation between coils and to core withstands 1250-v breakdown test. Continuous output current rating is 5 amp with output range adjustable from 0 to 13 v. Slots permit mounting transformer on wall or in equipment. The 4-lb unit measures 5½ x 3⅝ x 3¼ in. Made by **General Radio Co.**, Massachusetts Ave. & Front St., Cambridge 39, Mass.

For more details circle NED-8526 on enclosed inquiry slip

FOUR-WAY VALVE features built-in speed control



Independent regulation of stroke speed in each direction allows choice of cylinder speeds from zero to full valve capacity on Sincro four-way valves. Hand operated, foot operated with spring return and foot operated with rocker pedal models are offered in ¼, ⅜, ½ and ¾-in. ips. Types available are SC with built-in speed control and neutral position; QA with minimum lever movement, no speed control and no neutral position; and OC with open center, known as by-pass type, for hydraulic use. Valves are built to operate on 0 to 250 psi. Made by **Wisler Engineering & Machine Co.**, 405 W. West St., Sturgis, Mich.

For more details circle NED-8527 on enclosed inquiry slip

For Lifting and Holding Heaviest Loads

DUFF-NORTON Ratchet Lowering JACKS

for INDUSTRIAL PLANTS • MILLS • MINES • RAILROADS • CONTRACTORS RIGGERS • TRUCKERS • ETC.

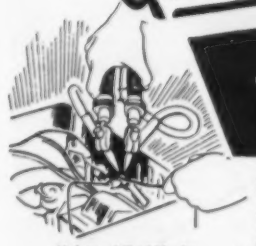
Constructed for long, trouble-free service—smooth action—Duff-Norton Ratchet Lowering Jacks raise loads weighing from 5 to 25 tons from 7½" to 18". Built for rugged use. Many sizes to choose from.

Write for Catalog 203 H.

THE DUFF-NORTON MANUFACTURING CO.
Main Plant and General Offices: PITTSBURGH 30, PA.—Canadian Plant: TORONTO 6, ONT.
"The House that Jacks Built"

For more details circle NED-8528 on enclosed inquiry slip

make Stronger solder joints Quicker and Cheaper!



Using "Fork" in tight space to "pinpoint" the heat.

IDEAL Thermo-Grip®

STRONGER—resistance heating provides ample concentrated heat—assures full adhesion of solder.

QUICKER—heating begins instantly. No preparation, no pre-heating, no set up.

CHEAPER—no wasted time or current. No chance of melting nearby joints or burning parts. No risky open flame.

Proved by thousands of manufacturers. Sizes for every soldering or brazing job.

Sold through America's Leading Distributors

"Standard" 1000-Watt Model with "Plier", "Fork" and "Pencil" attachments also available.

FREE TEST! You Be the Judge

IDEAL INDUSTRIES, Inc.
1032 Park Avenue
Sycamore, Illinois

Please arrange FREE Thermo-Grip demonstration and send catalog data.

NAME_____
COMPANY_____
ADDRESS_____
CITY_____ ZONE____ STATE____

For more details circle NED-8529 on enclosed inquiry slip

CHEMICALLY PURE WATER

from your faucet with the

LaMOTTE FILTR-ION

No installation necessary

Useful wherever chemically pure water is required, such as:

Photographic work
Storage batteries
Electric Steam Irons
Sterilizers
Analytical Procedures
Hydrogen-Ion Studies
Soil Testing
Blood Chemistry
Serology

2 models:

Model W—supplies up to 10 gallons on 1 charging, $3.85 each

Model W-D—supplies up to 20 gallons on 1 charging, $5.75 each. Both models may be recharged

(Refill package $3.50 each)

manufactured by

LaMOTTE CHEMICAL PRODUCTS CO.
Dept. NED Towson, Baltimore 4, Md.

makers of equipment & reagents for: pH control, Chlorine Control, Boiler Feed Water Control, control of Electroplating Baths and Cleaning Solutions, Soil Testing & Blood Chemistry.

For more details circle NED-8530 on enclosed inquiry slip

"LET OUR MAN FRIDAY" DO ALL YOUR WORK!

• Stop your payroll headaches with this new improved Simplex Payroll Recorder.
Faster 3 ways—
Automatic Operation—Fool Proof—
Saves Employees' Time.
Two color registration for late arrivals and early departures.

SIMPLEX TIME RECORDER CO., Gardner, Mass., Dept. N11

YES! Please give us more information on:

- ☐ Payroll Recorder
- ☐ Watchman's Clock
- ☐ Time Card Files
- ☐ Electric Time Stamp
- ☐ Time Card Racks
- ☐ Time Cards

Firm_____
Name_____
Street & No._____
City_____ State_____

For more details circle NED-8531 on enclosed inquiry slip

STEEL

Every Kind

Some steel products are in short supply but over-all stocks are still large, diversified

NEARBY STOCKS INCLUDE:

BARS—carbon & alloy, hot rolled & cold finished
STRUCTURALS—channels, angles, beams, etc.
PLATES—U. M. & sheared, Inland 4-Way Floor Plate
SHEETS—hot & cold rolled, many types & coatings
TUBING—seamless & welded, mechanical & boiler tubes
STAINLESS—Allegheny sheets, plates, bars, tubing, etc.
REINFORCING bars & access.
BABBITT bearing metal
MACHINERY & TOOLS for metal fabrication

RYERSON

Joseph T. Ryerson & Son, Inc. Plants: New York, Boston, Philadelphia, Detroit, Cincinnati, Cleveland, Pittsburgh, Buffalo, Chicago, Milwaukee, St. Louis, Los Angeles, San Francisco

For more details circle NED-8532 on enclosed inquiry slip

For greater safety under foot, in your plant and on your products

Inland 4-Way® Safety Plate

Adds Strength

Easy to Fabricate

Safe Footing

Easy to Clean

STOCKED BY LEADING STEEL WAREHOUSES

INLAND

INLAND STEEL COMPANY, Dept. NED-111
38 So. Dearborn St., Chicago 3, Ill.
Sales Offices: Chicago, Davenport, Detroit, Indianapolis, Kansas City, Milwaukee, New York, St. Louis and St. Paul.

New Bulletin with New Ideas—Just Out! Bulletin FI. Complete engineering and application data. Send for it!

For more details circle NED-8533 on enclosed inquiry slip

LARGE INSPECTION MAGNIFIER has integral 400 foot-candle light

Parts can be inspected and assembly work carried out under Colorama magnifying lens which has circular fluorescent lamp around its circumference and develops 400-foot-candles of light. Built with 12-in. field, lens incorporates color filters for relief from eye fatigue. Focal lengths available are 4, 6 and 12 in. Tempered and case hardened glass protects lens from scratching. Base brackets permit adjustment in any plane. Made by **McMahill Colorama Co.**, Dept. NED, 3618 Superior Ave., Cleveland 14, O.

For more details circle NED-8534 on enclosed inquiry slip

ARC WELDER for wide range of work

With welding range of 20 to 80 amp, model 80A alternating current type arc welder is capable of handling wide variety of work. Portable unit uses 1/16 to ⅛-in. rods on work ranging from 24-gage to ¼-in. sheet metal. Nine heat stages are adaptable to either arc welding process or twin carbon torch method. Operation is on 110-v ac. Made by **Trindl Products, Ltd.**, Dept. NE, 17 E. 23rd St., Chicago 16, Ill.

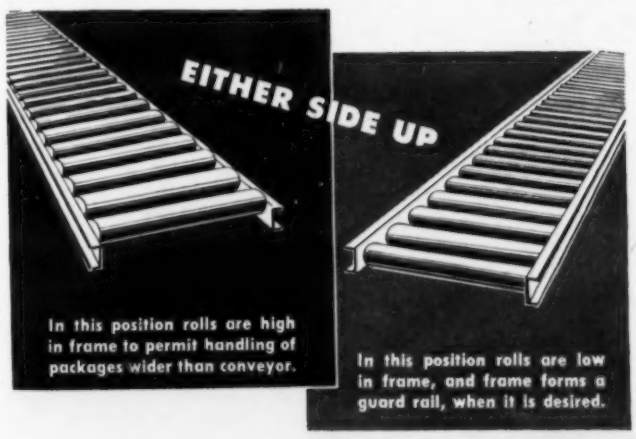
For more details circle NED-8535 on enclosed inquiry slip

COMPRESSION PIPE COUPLING minimizes turbulence at joint

Compression type pipe coupling which reduces electrolytic corrosion and turbulence at pipe joints can be used to couple ferrous-to-ferrous, ferrous-to-nonferrous and threaded - to - non-threaded pipe.

Coupling is made up of three parts: a gasket of material best suited for the specific application; a steel inner sleeve with die-cut teeth eccentric to gasket teeth to form seal when outer shell is tightened; and outer shell of zinc coated steel or corrosion resistant metals, with zinc coated washers, bolts and nuts. It is made for ½ to 14-in. standard pipe sizes including intermediate tube sizes by **Morris Coupling & Clamp Co.**, 1000 Beaver Ave., Ellwood City, Pa.

For more details circle NED-8536 on enclosed inquiry slip



A PRACTICAL FEATURE OF *Logan*

STOCK ROLLER CONVEYOR

Above is shown one of the practical features of Logan Stock Roller Conveyor. Other features include (a) immediate shipment (b) available in several sizes (c) both straight and curved section can be furnished (d) both stationary and portable supports available. Write for literature.

Write or phone your requirements

Logan Conveyors

LOGAN CO., 215 CABEL ST. • LOUISVILLE 6, KY.

For more details circle NED-8537 on enclosed inquiry slip

CHROMALOX gives you the *LOW COST* answer for

VARIABLE HEAT
NON-BREAKABLE INFRARED
SAFE OPERATION

CHROMALOX ALL-METAL *Electric* RADIANT HEATERS

The new and improved CHROMALOX heating principle gives ALL infrared heat advantages: high heat intensity, "color blind" infrared radiation, heat that's infinitely variable! You get more satisfactory results at reduced costs in baking, drying, curing, preheating and similar uses with CHROMALOX Radiant Heaters.

Write for FULL DATA

Tell us what you want to do with infrared heat and we'll send you data sheets covering your needs.

Radiant Heater Div., EDWIN L. WIEGAND CO., 7500 Thomas Blvd., Pittsburgh 8, Pa.

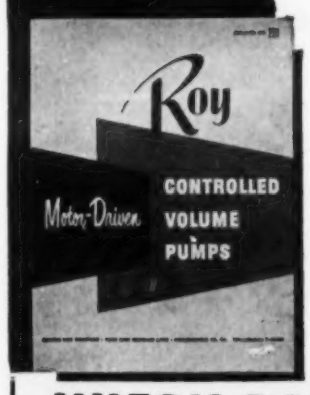
See other advertisement on page 55

CHROMALOX

ELECTRIC HEAT FOR MODERN INDUSTRY

For more details circle NED-8538 on enclosed inquiry slip

MOTOR-DRIVEN CONTROLLED VOLUME PUMPS



Facts are in this Bulletin. Facts about Milton Roy Motor-Driven Controlled Volume Pumps. These facts will be of value to plant men faced with the need of pumping liquids in controlled volume.

Bulletin No. 251 is 24 pages long, in 2-colors, and contains illustrations showing the standard Milton Roy Motor-Driven Controlled Volume Pumps as well as models designed for special applications. Bulletin No. 251 describes in detail how pump capacity can be regulated by plunger speed and plunger stroke adjustments. Capacity pressure selection tables are included.

There's a wealth of information here. Important information, too. Write today for Milton Roy Bulletin No. 251.

MILTON ROY COMPANY
1304 E. MERMAID LANE • PHILADELPHIA 18, PA.

For more details circle NED-8539 on enclosed inquiry slip

Don't spoil it—KROIL it!

Don't ruin a valuable piece of equipment merely because some part is rusted tight. Apply Kroil, the amazing new chemical lubricant that creeps into millionth inch spaces (proved by laboratory tests), dissolves rust, supplies necessary lubrication and

LOOSENS FROZEN PARTS

9000 of America's leading plants can't be wrong! They used KROIL during the last war and are still depending on it to save expensive labor and valuable parts. They say: "Kroil loosened bushings after a 12-ton press had failed" . . . "on repairing heat treat trolleys formerly destroyed every nut. Now Kroil saves them all, and time, too" . . .

You too should be using KROIL every day. Try it on money-back basis. Gallon $3.50; with Kroiler trigger squirt gun (shoots a drop or a stream 15 feet, if desired) $4.75, f.o.b. our factory.

KANO LABORATORIES 1074 S. Thompson Lane Nashville 11, Tenn.

For more details circle NED-8540 on enclosed inquiry slip

SAVE MONEY on *Rubber Hose* short and random lengths

If you use short pieces of rubber hose in production or maintenance, we offer tremendous price savings on all sizes, all types, all lengths.

A 12,000 sq. ft. warehouse bulges with our stock of first quality hose for every industrial purpose which can be cut and delivered to your length or in uncut random lengths.

We can save you money on bulk hose as well—top grade, fresh stocks of every description and quality.

Inquiries promptly answered and quotations made without obligation. Send us your specifications today.

NEW! LITE-STEP Anti-fatigue Matting and Oil-resistant Lite-Step

ACE HOSE & RUBBER CO.
1708 S. State St. Chicago 16, Ill.

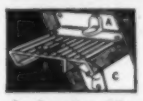
For more details circle NED-8541 on enclosed inquiry slip

HERE'S DUO-SAFETY'S TWO-SIDED . . . ALL ALUMINUM MAINTENANCE LADDER

TYPE AL2C

Double Size Platform

Especially Sturdy Spreader



A. Angle Clip Brace.
B. Serrated, Reinforced Step.
C. Angle Brace.

A new ladder in the famous Duo-Safety line of strong, sturdy, aluminum industrial ladders. Has a double climbing side, large top platform, rubber safety boots, light, strong aluminum construction. Ideal for all types of overhead maintenance work including use with extension planks. Available in sizes from 3 to 16 feet and is collapsible for storage in a limited space.

Free, Colorful File Catalog . . . Sent on Request

DUO-SAFETY LADDER CORP.
811 NINTH ST. OSHKOSH, WIS.

For more details circle NED-8542 on enclosed inquiry slip

The NEW **PRōTEX**
THE FINEST PORTABLE HAND LAMP MADE

NOW with NEōTEX Handle
. . . a synthetic OIL-PROOF rubber, impervious to oils, greases and most chemicals.

WATERTITE SOCKETS
. . . one-piece molded rubber . . . positively waterproof when bulb is inserted.

EXTRA HEAVY GUARD
. . . heavy plated steel wire, electrically welded for maximum strength.

SAFETY FIRST

Accidents Can Be Prevented

The new NEōTEX PRōTEX portable lamp is made of only the highest quality materials for Safety and Longer Life. NEōTEX is a special oil-proof compound that makes the use of a NEōTEX PRōTEX portable practical even where oils, greases and most chemicals would deteriorate regular rubber.

Insist on a NEōTEX PRōTEX portable for oil-proof protection. All NEōTEX PRōTEX portable lamps are available with insulated fibre, bakelite and NEōTEX coated wire guards . . . also with side outlet and switch handles.

See Your Electrical Wholesaler, or WRITE . . .

DANIEL WOODHEAD COMPANY
15 NORTH JEFFERSON ST., CHICAGO 6, ILL.

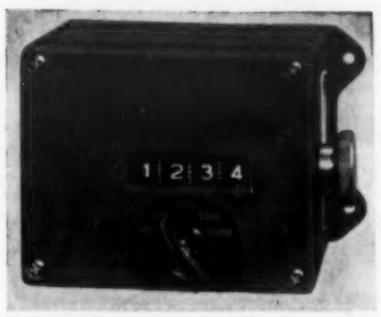
For more details circle NED-8543 on enclosed inquiry slip

STEAM CLEANING UNIT also delivers high pressure water

Each of two high pressure steam guns available with Power Master steam cleaning unit delivers 150 gph for heavy duty cleaning in industrial maintenance, construction, petroleum and railroad cleaning operations. Also incorporated is high pressure water gun which supplies hot or cold water at pressure of 500 psi. Water delivery rate is 1000 gph. Photo shows two Hy-Vel steam nozzles at left and Power Blast water gun at right. Made by **Kelite Products, Inc.**, 1250 N. Main St., Los Angeles 54, Calif.

For more details circle NED-8544 on enclosed inquiry slip

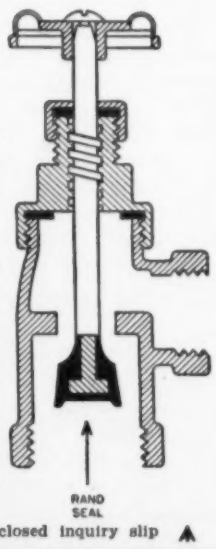
AUTOMATIC BATCH COUNTER counts up to 600 units per minute



Electrically operated, this compact automatic batch counter provides continuous counting of preset quantities without interrupting production. At last count of each batch quantity, instrument automatically closes built-in control switch which will operate signals, conveyors, chute gates or packaging equipment. Counter can be actuated by switch, relay or photoelectric unit and can be located remote from source of count. It is equipped with four number wheels which register all units until reset. Knob, key and nonreset types are available with counting speeds up to 600 units per minute. Five models are available, each capable of counting various quantities or combination of quantities within specified range. Made by **Production Instrument Co.**, 700-12 W. Jackson Blvd., Chicago 6, Ill.

For more details circle NED-8545 on enclosed inquiry slip

LEAKPROOF VALVE SEAL adaptable to gas and fluid valves



Working with rather than against fluid flow, cone-shaped Rand seal is applicable to many present fluid and gas flow valves and other devices. Seal is leakproof, long wearing and easy to operate. Cup-shaped conical washer of seal incorporates imbedded metal plug which eliminates bending and warping and makes seal leakproof. Rubber member of seal withstands oil, grease, steam, water and most industrial chemicals. Developed by **Rodic Chemical & Rubber Corp.**, 1950 Allen Ave., New Brunswick, N. J.

For more details circle NED-8546 on enclosed inquiry slip

WHY PAY MORE FOR PROTECTIVE COATINGS?

MACHINERY GRAY and COLORED LACQUER

NO PRIMER NEEDED

$1.00 PER GAL.
In 55 Gal. Drums
$1.15 in 5 Gal. Cans
$1.25 for Other Colors
Also can be supplied thinned and ready to spray at NO EXTRA COST!

Wonderful Adhesion . . . ONE COAT COVERS

Quick Drying No Baking

Steady Supply Immediate Delivery

Can Be Thinned with any Standard Lacquer Thinner

NO. 1 GRADE LACQUER THINNER 80c PER GAL.

This low price is possible only because of Michigan Oil & Chemical Co.'s exclusive new development in lacquer formulation. Our lacquer will stand up to finishes selling for 4 or 5 times this unbelievable low price! Don't take our word for it—Order a sample quantity and test this high quality finish in your own plant!

FOR FUEL OIL TANKS AND OTHER FABRICATED METAL PRODUCTS

MICHIGAN OIL & CHEMICAL COMPANY
Vinewood 3-9650
4360 LARKINS AVE. DETROIT 10, MICH.

For more details circle NED-8547 on enclosed inquiry slip

MAXI-PICH V-BELT SHEAVES

Four reasons why— YOU SHOULD DEMAND

"V-BELT" MAXI-PICH Stationary & Motion Control Sheaves

They're engineered for rugged performance from best grades of heat-treated steel and soft-gray iron castings.

You get every advantage of other sheaves **plus** these 4 outstanding features—

1. MAXIMUM PITCH DIAMETER VARIATION
2. CONSTANT BELT ALIGNMENT
3. INTERCHANGEABLE BUSHINGS
4. USES COMMERCIAL V-BELT AND COMPANION SHEAVE

"V-Belt" Maxi-Pich Sheaves fit any factory machine—save installation and operating costs—speed production. For the FULL STORY, ask your "V-Belt" dealer, or write to the V-Belt Engineering Co., Richmond, Va.

V-BELT ENGINEERING COMPANY
RICHMOND, VIRGINIA

For more details circle NED-8548 on enclosed inquiry slip

RECORDERS . . . with High Sustained Accuracy

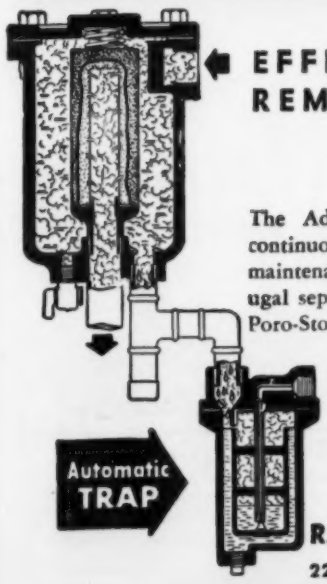
Time-proved features such as the pivoted pen arm movement, automatic chart hub, Humitex Chart . . . all help to make Foxboro Recorders the choice of leading industries throughout the world. They assure easy operation and maintenance. Dependable accuracy and long-life characterize all Foxboro Instruments.

Foxboro Recorders are available in round or rectangular cases . . . for temperature, pressure, flow, liquid level and other process variables . . . in portable, long-distance and multiple-pen types. Write for details. The Foxboro Company, 13411 Neponset Ave., Foxboro, Mass., U. S. A.

FOXBORO Reg. U. S. Pat. Off. **RECORDERS**

For more details circle NED-8549 on enclosed inquiry slip

Poro-Stone Filtration FOR COMPRESSED AIR



EFFICIENTLY REMOVES:

OIL, WATER PIPE SCALE

The Adams *Poro-Stone* Filter gives continuous service without attention or maintenance expense. Efficient centrifugal separation *plus* diffusion through Poro-Stone, removes contamination completely without pressure loss. Automatic Trap eliminates attention and assures continuous and efficient filter operation. Write for complete data—Bulletin 176.

R. P. ADAMS CO., INC.
227 E. Park Dr., Buffalo 17, N. Y.

ADAMS *Poro-Stone* AIR FILTER

For more details circle NED-8550 on enclosed inquiry slip

As sure as the coming of Spring

...you will switch to MOLYBDENUM High Speed Steel

The increased usage of Molybdenum high speed steel is based on:

its merits,
its easy availability,
its lower cost.

You can save tungsten for uses where it is really needed. Don't delay, the switch is easy.

All the facts you need in this FREE BOOKLET.

Climax Molybdenum Company
500 Fifth Avenue · New York City

HS11

For more details circle NED-8551 on enclosed inquiry slip

HERE'S HELP

in finding their causes and cures!

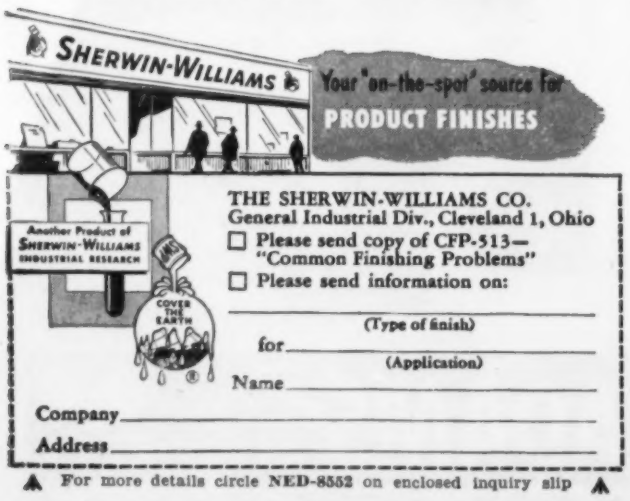
Bothered with sags . . . poor adhesion . . . improper drying . . . other product finishing difficulties?

This new Sherwin-Williams brochure offers a handy check list for determining causes and cures of most common finishing problems. It's part of the on-the-spot, local industrial service offered to manufacturers everywhere, through the Brown Label line of Sherwin-Williams Industrial Product finishes and Sherwin-Williams Branches.

These products include a complete line of quality industrial lacquers, enamels and specialty finishes for both wood and metal . . . baking and air-drying.

Check this handy local source for your requirements . . . ask your nearby Sherwin-Williams Branch for free copy of Brochure CFP-513 described here, or mail the coupon below.

SHERWIN-WILLIAMS
INDUSTRIAL FINISHES

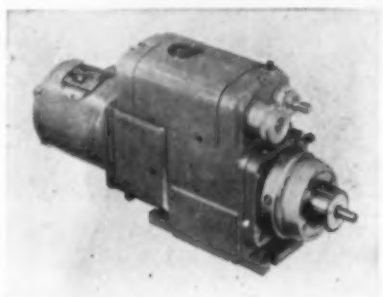


THE SHERWIN-WILLIAMS CO.
General Industrial Div., Cleveland 1, Ohio

☐ Please send copy of CFP-513—"Common Finishing Problems"
☐ Please send information on: _____ (Type of finish)
for _____ (Application)
Name _____
Company _____
Address _____

For more details circle NED-8552 on enclosed inquiry slip

AIR HYDRAULIC DRILL UNIT
infinite feeds make machine adaptable to variety of uses

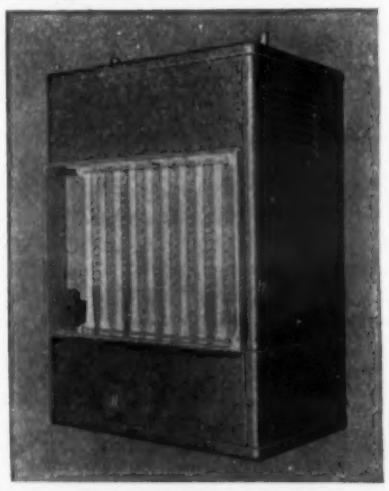


Designed as basic unit adaptable to special machines for high production drilling, reaming, tapping, chamfering, spot facing, centering and other operations, model 19-150 air hydraulic drill unit operates from plant air supply line. Infinite feeds eliminate need for cams and afford quick adjustments. With built-in switches, any number of units can be mounted on framework and electrically interlocked with fixtures or index mechanisms.

Feed control is sealed pumpless hydraulic system, while depth controls are adjustable stops. Normal cycle gives rapid advance, drilling feed and rapid return. All controls, grouped at front, are infinitely variable for entire range. Feed control is variable from 0 to 70 ipm, stroke is from 0 to 1½ in., and unit takes up to 5/16-in. drill in steel. Spindle can be motor, gear or belt driven. Made by **Rockwell Mfg. Co.**, Delta Power Tool Div., 614 E. Vienna Ave., Milwaukee 1, Wis.

For more details circle NED-8553 on enclosed inquiry slip

DUCT FURNACES
shipped assembled with controls



Designed for installations where air supply and pressure originate at source removed from unit, Pittsburgh gas-fired duct furnaces are practical for use in air conditioning installations where air ducts are already in place. Basic unit is equipped with one-piece cast iron heat exchanger and combustion chamber to withstand corrosive effects of burning gases and moisture. Extended heating surface fins in heat exchanger are cast integral. Built-in draft hood absorbs excessive chimney action and conserves heat. Furnaces are supplied in sizes from 12,000 to 200,000 Btu input per hour and are shipped assembled with controls and draft diverter. Made by **Automatic Gas Equipment Co.**, 488 Brushton Ave., Pittsburgh 21, Pa.

For more details circle NED-8554 on enclosed inquiry slip

DO YOU KNOW? Thirty-four separate sessions to study maintenance problems will be held simultaneously with the Plant Maintenance Show at Philadelphia Convention Hall from Jan. 14 to 17, 1952. More than 100 industrial executives will appear on this program. For full information, write Clapp & Poliak, Inc., 341 Madison Ave., New York 17, N. Y.

For more details circle NED-8555 on enclosed inquiry slip

BEARING MAINTENANCE REDUCED with MAGNETIC FILTRATION

The Frantz FerroFilter for the Lubricating Systems of:

- motor generator sets
- mill drive motors
- roll neck bearings
- pinion stands
- enclosed bronze bearings
- roll and shear tables

The Frantz Permanent Magnet FerroFilter removes abrasive iron and steel particles from circulating lubricating oils. These harmful particles, sometimes as fine as one micron, are removed from suspension in the liquid as it passes through a maze of hundreds of feet of magnetized edges.

When used as a coolant filter in machining operations, the FerroFilter lengthens tool life—protects pumps—improves work finish—speeds production.

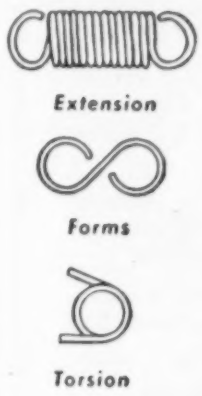
For further detailed information let us send you Bulletin No. 56

S. G. FRANTZ CO., INC.

P.O. Box 1138 Trenton 6, New Jersey
Manufacturers of Permanent Magnet and Electromagnetic Separators

For more details circle NED-8556 on enclosed inquiry slip

Springs FOR YOUR ORDNANCE CONTRACTS

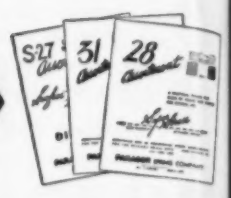


- Paragon has complete files on Government specifications.
- Experience in the manufacture of close tolerance, high quality springs.
- Complete heat treating and testing facilities.

Your ordnance springs come to you ready for assembly . . . inspected with test affidavits included with each shipment.

SEND SPECS. FOR QUOTATION

Write for STOCK SPRING DATA SHEETS giving complete specs, loading and design information.



PARAGON SPRING COMPANY
4619 West Fulton St., Chicago 44, Ill.

For more details circle NED-8557 on enclosed inquiry slip

NEW! TUMBLER-MIXER

$99.50 F.O.B. Cleveland Without Tumbling Barrel

A LARGE TUMBLER at a SMALL PRICE!

ATTACHABLE STEEL BURRING BARREL as illustrated **$42.50**

Dealers Inquiries Invited.

Universal—Portable Unit Saves Time, Space, Expense —Tumbles Solids or Mixes Liquids—Tilts through 90°.

Adaptable to many uses due to adjustable turntable clamps that allow standard or odd-shaped containers to be used. Easy to hold 5-gallon pail, wooden box, can, jug, stone jar, etc. Various other barrel attachments available.
SPECIFICATIONS—Anti-Friction Bearings—Automatic Belt Tightener—19" Diameter turntable—1/6 H.P. 110 volt A.C. single-phase motor—Weight 80 pounds—barrel extra.

Write for complete information.

RAMPE MANUFACTURING CO.
3326 ST. CLAIR AVE., CLEVELAND 14, OHIO

For more details circle NED-8558 on enclosed inquiry slip

Tube Swelling Can't Happen Here

Concord #20
STEAM HOSE

Patented CONCORD #20 Steam Hose is constructed with a special stainless steel inner wire braid that cannot swell.

This means you always have a full pressure flow because tube constriction can't occur.

Re-coupling is performed easily, quickly, with no complications.

Other construction features include — alternate high tensile steel wire and rubber layers firmly bonded over the outside of the tube for maximum burst protection. Asbestos braid provides positive cover adhesion and acts as cover insulator. Tough, abrasion-resistant cover withstands the most severe abuse.

CONCORD #20... flexible, tough, dependable...is the steam hose you'll want to have working for *you!*

Another Quality Product of

BOSTON WOVEN HOSE & RUBBER CO.
Distributors in all Principal Cities
PLANT: Cambridge, Mass. • P.O. Box 1071, Boston 3, Mass., U.S.A.

For more details circle NED-8559 on enclosed inquiry slip

DON'T RISK FLASH FIRES!

Clean equipment & parts with *non-inflammable, non-toxic*

PENETONE SENIOR

You don't need hazardous solvents like gasoline and kerosene for industrial cleaning. Non-inflammable, non-toxic PENETONE SENIOR—a liquid concentrate—cleans machines, tools, parts, floors, walls, and lighting fixtures safely and *at low cost*. What's more, it is harmless on all metals, including aluminum.

Hundreds of leading industrial plants have adopted this *safety* cleaner for 85% of their cleaning jobs. We can help you, too, eliminate fire and fume risks in your plant. Write us today for *performance-tested* Field Service Reports on Plant Maintenance and Direct Contact Degreasing.

THE PENETONE CO.

BOX ND 1151 • TENAFLY, N. J.

For more details circle **NED-8560** on enclosed inquiry slip

Specify this oil seal to save space!

Clipper Seal's narrow flange sections permit minimum depths for oil seal cavities, thereby allowing engineers greater design freedom in the present trend toward more compact and efficient machines.

In addition to saving space, there are other important reasons why Clipper Seals are specified today:

(1) Their tough one-piece rigid heel and resilient inner lip retains oil with light but positive sealing contact, protecting bearings against grit, moisture and corrosive fumes.

(2) Both endless and split type seals, with specially designed garter springs, help speed assembly of precision parts—make maintenance quicker and easier.

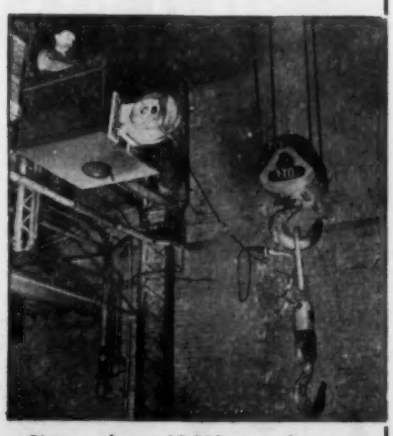
If simplicity of design is your problem, then use Clipper Seals. They're available in a variety of lip designs for different bearing surfaces, to fit shafts of ¼" to 66" in diameter, and for temperatures to 450F. For more complete information, send for brochure PK-46A. Address: Johns-Manville, Box 290, New York 16, N. Y.

Johns-Manville CLIPPER SEALS

For more details circle **NED-8561** on enclosed inquiry slip

The New Ametron Electronic Scale weighs by *electronics*

- ELECTRIC LOAD CELLS
- REMOTE INDICATION
- PRINTING RECORDERS
- LOW MAINTENANCE



Picture shows 10,000 pounds capacity crane electronic scale used in shipping department of Harnischfeger Corporation, West Allis, Wisconsin.

Write for illustrated circular "The Way to Weigh"

STREETER-AMET COMPANY

4101 RAVENSWOOD AVENUE • CHICAGO 13, ILLINOIS

For more details circle **NED-8562** on enclosed inquiry slip

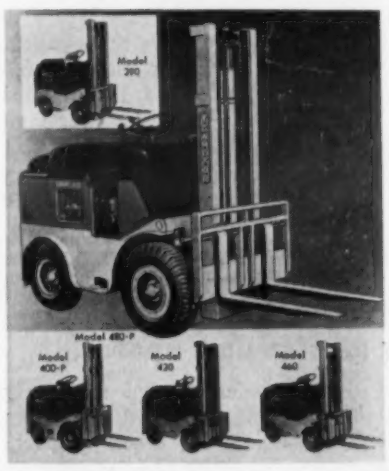
SERVO MEASURING SYSTEM KIT measures straight line motions in variety of applications

Basically a servo-mechanism system operating on linear transformer principle, Atcotran measuring system kit measures such straight line motions as displacement of bellows or diaphragm, motion of float, tip travel of Bourdon tube and tilt of weigh beam. Kit contains differential transformer, standard servo mechanism, amplifier, terminal block, mounting block and four-wire connection cable.

Force, motion, torque, tension, thickness and edge position can be measured. By connecting servo mechanism, differential transformer and amplifier in null balance circuit, output of servo will drive recording chart pen, operate indicator pointer, position slide wires for electrical controls or contacts, drive pulleys or cams and position hydraulic valves or pneumatic cylinders. Transmitters and receivers can be installed up to 5000 ft apart with little signal loss. Made by **Automatic Temperature Control Co.**, 5206 Pulaski Ave., Philadelphia 44, Pa.

For more details circle **NED-8563** on enclosed inquiry slip

FORK LIFT TRUCKS solid cushion or pneumatic tires



Three of five new Towmotor fork lift trucks replace three previous models and have solid or cushion tires and shorter wheelbase for better maneuverability. Other two feature pneumatic tires on all wheels. Condensed specifications of five models are: model 480-P has 48-in. wheelbase, capacity of 4000 lb at 24-in. load center and large pneumatic tires. Model 390 has 39-in. wheelbase and capacity of 3000 lb at 15-in. load center. Model 400-P can carry 2000 lb at 24-in. load center on its 40-in. wheelbase. This model also has pneumatic tires. Model 420 has 42-in. wheelbase and 4000 lb capacity at 15-in. load center. Model 460 has 46-in. wheelbase, 4000-lb capacity and 24-in. load center. Made by **Towmotor Corp.**, 1219 E. 152nd St., Cleveland 10, O.

For more details circle **NED-8564** on enclosed inquiry slip

DO YOU KNOW? Practically all Government specification finishes issued to date are listed in free booklet. Tabulated are specification code number, complete ingredient detail and drying periods required between appilcations. Write to Egyptian Lacquer Mfg. Co., Box 444, Newark 1, N. J.

For more details circle **NED-8565** on enclosed inquiry slip

FAN MAIL!

"Approximately nine months ago we installed an INTERNATIONAL RETRACTABLE ANVIL STAPLE MACHINE, Model HASO on our production line, and since that time have had no complaints regarding our packaging and find that we have saved considerable man hours in our packaging operation."

METAL BED RAIL COMPANY LEXINGTON, KY.

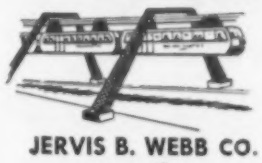
INTERNATIONAL STAPLE & MACHINE CO.

HERRIN, 2, ILL.

DISTRIBUTORS IN PRINCIPAL CITIES

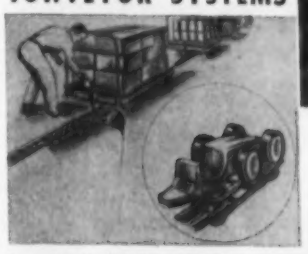
For more details circle **NED-8566** on enclosed inquiry slip

The FIRST monorail



Development of the unique single track railroad car, balanced by gyroscopes, was started by the Englishman Louis Brennan in 1896. Never in wide use, it nonetheless led to many further applications based upon the principles thus developed.

JERVIS B. WEBB CO. was the FIRST to develop TOWVEYOR SYSTEMS



under-floor type towing conveyors

This continuous chain conveyor runs in a steel slot below the floor. There is nothing to obstruct. A simple towing pin device is attached to any standard 4-wheel truck or trailer, 2-wheel truck with dolly, and operator either engages or disengages by lowering or raising the pin. When the pin is dropped into the slot, the trolley attached to the Webb Drop Forged Rivetless Chain picks up the load automatically. This original Webb development—The Towveyor—offers great speed and efficiency for handling boxes, packages, barrels, tote boxes, parts, etc. Loading and unloading can be done at any point. The Towveyor System is flexible—trucks may be added, disengaged or side tracked, as desired.

CONVEYOR ENGINEERS AND MANUFACTURERS

JERVIS B. WEBB COMPANY

8921 ALPINE AVE. DETROIT 4, MICH. — OFFICES IN PRINCIPAL CITIES

For more details circle **NED-8567** on enclosed inquiry slip

LETTER *like a professional*

WITH NEW WRICO GUIDES

Our new WRICO guides enable even the inexperienced draftsman to make really professional lettering.

The new, superior guide holder (exclusive with WRICO) eliminates the need for a straightedge. When the holder is in position there is no chance of slipping, and it keeps the guide in accurate alignment at all times.

With the WRICO three-way scriber you can make vertical, slant or italic letters *without changing guides*. A simple adjustment does the trick.

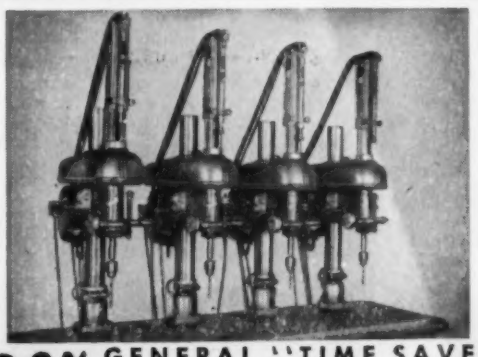
Use WRICO guides and you're sure to get sharp, clean letters everytime—and in far less time.

BRUNING

Write today for free descriptive literature.

CHARLES BRUNING COMPANY, INC., • DEPT. J-111A • 100 READE ST., • N. Y. 13, N. Y.

For more details circle **NED-8568** on enclosed inquiry slip



400% Production Increase!

GENERAL "TIME SAVER" DRILL FEED MAKES DRILL PRESS OPERATION AUTOMATIC. DOES NOT INTERFERE WITH MANUAL OPERATION.

Uses Unskilled Labor . . . Reduces Drill Breakage! Quick, Simple Installation! Operates by ordinary air pressure 80-150 p.s.i. Features Precision "In-Line" Mounting, Safety Control Shield, etc. Mail coupon below TODAY.

PLEASE SEND COMPLETE INFORMATION ON ALL GENERAL "TIME SAVER" DRILL FEED FEATURES!

Name_____ Title_____

Company_____

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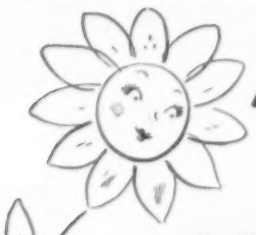
THE GENERAL PACIFIC CORP.

1501 E. WASHINGTON BLVD. • LOS ANGELES 21, CALIF.

For more details circle **NED-8569** on enclosed inquiry slip



Be fresh... Stay fresh

wear a

DUPOR No. 4

THE RESPIRATOR FOR DUST, FUMES, PAINT SPRAY

Double filters provide easy breathing. Soft rubber face mask gives air-tight fit. Sanitary face cloth protects against dermatitis or chafing. Has patented DUPOR valves for "controlled breathing," and panorama view without blind spots. A prime favorite for years!

Sample sent

$2.00 pp

H. S. COVER, South Bend, Ind.

For more details circle NED-8570 on enclosed inquiry slip

REPLACE INFLAMMABLE SOLVENTS With Rustproof Odorless Instant Wetting . . . IMMUNOL

- Non-inflammable, odorless, non-toxic IMMUNOL added to any water in long dilutions makes a powerful solvent, rust preventive and wetting agent for most cleaning and rust-proofing operations. IMMUNOL solutions replace such solvents as Stoddard Solvent, Kerosene, Gasoline, Carbon Tetrachloride, Mineral Spirits, etc. and are lower in cost as finished solutions.
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- Parts needing rust protection are protected by a non-oily, invisible water soluble film which need not be removed prior to additional processing and can be painted or lacquered over without removal. Outstanding for replacing inflammable solvents for use on metal, plastics, glass, ceramics, woodwork, linoleum, etc.

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4th & BRISTOL STS. • PHILA. 40, PA.

For more details circle NED-8571 on enclosed inquiry slip

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PLASTIC ROCK FLOORS

Save priceless production time! Renew old floors over the week-end to last for many years. Heavy traffic only packs denser. Non-skid, noiseless, spark-proof; bonds and feather-edges perfectly on concrete, wood or steel. Each Plastic Rock unit is complete; nothing else to buy; no guesswork; maintenance crew or contractor can apply.

Get free Bulletin N-11.

UNITED LABORATORIES, INC.
16804 Euclid Avenue, Cleveland 12, Ohio
FLOORING • ROOFING • SPECIAL PAINTS
Field Representatives Coast to Coast

For more details circle NED-8572 on enclosed inquiry slip

PORTABLE HAND DRILL
equipped with 3/8-in. chuck

Geared 3/8-in. chuck and swivel ball side handle for two-hand operation are now furnished with model 115 portable drill currently used in vehicle body manufacturing and maintenance shops. It weighs 4¼ lb and has recommended 3/8-in. capacity in metal and ¾-in. holes in hard wood. Made by **Cummins-Chicago Corp.**, Cummins Portable Tools Div., 4770 N. Ravenswood Ave., Chicago 40, Ill.

For more details circle NED-8573 on enclosed inquiry slip

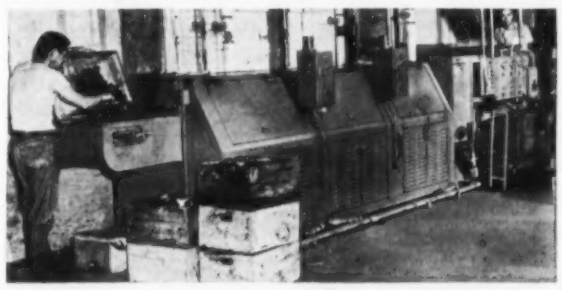
AIR CONDITIONING UNITS
one unit feeds several zones

Produced with five air conditioning capacities between 12 and 58 tons, this line of central system "zoning" Weathermakers provides independent control of air conditioning in separate areas of building through a single unit. Number of zones possible with factory-built damper section varies from five for smallest size to 14 for largest. Units are of horizontal blowthrough type. Damper control for separate zones is provided through double outlet arrangement, with one supplying cooled and dehumidified air and the other supplying warm air. Double dampers regulate proportion of warm and cool air for zone. Made by **Carrier Corp.**, 300-A S. Geddes St., Syracuse 1, N. Y.

For more details circle NED-8574 on enclosed inquiry slip

PLASTIC PARTS WASHER
has four-cycle cleaning operation

Heated by either steam or gas, model SK 12 x 6-ft parts washing machine washes, rinses and dries Bakelite parts in volume. Bakelite dust, chips and oil traces on parts



are removed by four-cycle cleaning operation which includes one washing, double rinsing, fresh water rinse and thorough drying. Machine has capacity rate of 5000 small parts per hour and proportionately high capacities for larger parts. Even chips as fine as powder are completely removed. Made by **Industrial Washing Machine Corp.**, Dept. ST, 292 Burnet St., New Brunswick, N. J.

For more details circle NED-8575 on enclosed inquiry slip

Make all loads... PAY LOADS!

Put This TROJAN to Work

Wherever loading, unloading, stacking or boosting is done, the Buschman TROJAN does it faster, cheaper and with far less labor. It can be moved and operated easily by one man; adjusts for height as desired. It transports packages up, down or horizontally . . . by itself or in combination with portable or fixed conveyors. For complete details, write for Bulletin 50.

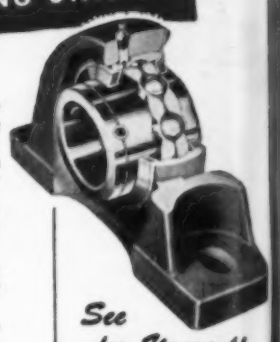
REPRESENTATIVES IN PRINCIPAL CITIES

THE E. W. BUSCHMAN COMPANY
Spring Grove at Winton Pl.
Cincinnati 32, Ohio

PRODUCE MORE . . . FOR LESS
Buschman Conveyors

For more details circle NED-8576 on enclosed inquiry slip

GET SERVICE with SEALMASTER BALL BEARING UNITS



Machines run longer smoother—*with less maintenance*—when they're equipped with SealMaster Ball Bearing Units This exclusive combination of money-saving features tells why:

- **PERMANENTLY SEALED** to exclude dirt and retain grease over long periods.
- **SELF-ALIGNING** in any direction without seal distortion yet no outer race rotation in housing
- **PRE-LUBRICATED** at the factory—ready for use in your plant

SEALMASTERS are available in Pillow Blocks, Flange Units, Hanger Units, Cartridge Units, Flange-Cartridge Units and Take-Up Units.

Write for CATALOG 845 which lists dimensions and load ratings on the complete SealMaster line.

See for Yourself
Why SEALMASTERS Excel
SEALMASTERS are designed to give satisfactory service, operate quietly and require minimum attention over long periods
get complete data from catalog 845

BEARING DIVISION
STEPHEN S-ADAMS Mfg. Co.
12 Ridgeway Ave., Aurora, Ill. / Los Angeles, Calif. • Bellville, Ont.

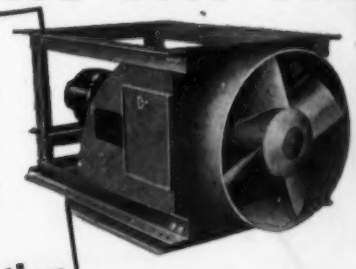
Factory Representatives and Dealers in All Principal Cities

For more details circle NED-8577 on enclosed inquiry slip

Wing

ELBOW TYPE DUCT FANS

Delivers Large Air Volumes with Low Power Consumption



Complete range of sizes from 10 in. to 60 in.; and from 200 to 85,000 c.f.m.

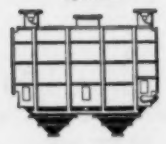
The Wingfoil Axial Flow Duct Fan, in either elbow type or straight line type, is a compact, economical fan designed to operate against static pressure. The elbow type replaces an elbow in a run of duct, with the motor outside the housing, unaffected by hot or dirty air or gases. Belt or direct drive. Wingfoil "Non-overloading" fan wheel characteristics. Write for bulletin.

L. J. Wing Mfg. Co. 165 Vreeland Mills Road Linden, New Jersey

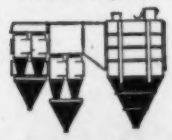
For more details circle NED-8578 on enclosed inquiry slip

buell KNOWS DUST RECOVERY

Buell (van Tongeren) Cyclone



Buell 'SF' Electric Precipitator



Combination Cyclone-Precipitator Unit

WHENEVER industrial engineers discuss valuable dust recovery, Buell is the big name mentioned. For Buell offers knowledge and capabilities in dust recovery second to none. Only Buell Precipitator recovers ultra-fine dust with "Stedi-flow" dust fall—continuous cycle rapping that means constant peak efficiency. Buell large diameter cyclones do not plug, require next to no maintenance. Complete details on both types of equipment are available. Buell Engineering Co., Dept. 23K, 70 Pine St., New York 5, N. Y.

buell

Engineered Efficiency in **Dust Recovery**

For more details circle NED-8579 on enclosed inquiry slip

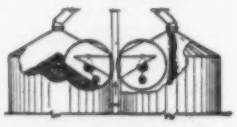
SAVE TIME... STORAGE SPACE ...AND AVOID SPILLAGE

with TELLEVEL AUTOMATIC BIN-LEVEL CONTROL

Let TELLEVELS watch your bin-level for you . . . Avoid empty or overflowing storage bins.

Mount a TELLEVEL near the top and another near the bottom of your storage bin . . . As the material-level falls or rises, the light pendant is pushed aside . . . Automatically *starts or stops* conveyor, elevator or pump . . . Can be furnished for bulk materials or liquids.

Check possible uses. Write now for Bulletin No. 440.



STEPHENS-ADAMSON MFG. CO.

Tellevel-Bin Level Controls · Saco Speed Reducers · Car Loaders · Car Pullers · Winches · SealMaster Ball Bearings

12 RIDGEWAY AVE., AURORA, ILLINOIS

For more details circle NED-8580 on enclosed inquiry slip

How to save Labor and Money by Centralizing Lubrication

FOR more than 20 years, Farval has been saving manpower and money for users. Through efficient, dependable lubrication of machines and industrial equipment of all kinds, Farval saves 4 ways: It saves oiling labor, it saves lubricant, it reduces bearing expense, it eliminates down time.

The Farval System is a positive mechanical method of delivering *oil or* grease under pressure to a group of bearings from one Central Station, in exact quantities, as often as desired. It consists of a central pumping unit, two main supply lines and a measuring valve for each bearing.

Bulletin 25 gives you the facts and figures to apply to your own lubrication problems. The Farval Corporation, 3283 East 80th St., Cleveland 4, Ohio.

Write for FREE Bulletin 25

For more details circle NED-8581 on enclosed inquiry slip

a WELL-CAST lightweight magnesium or aluminum casting is your ready answer

40 Years' experience producing quality lightweight castings for the aircraft, textile, pneumatic tool, automotive, domestic appliance, and other diversified industries everywhere.

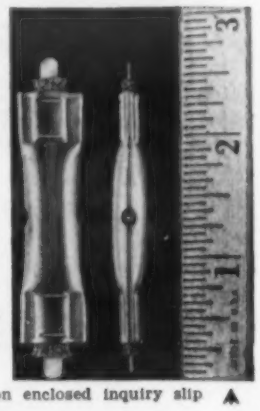
Well-Made Wood and Metal Patterns
Ampco Bronze Castings

THE WELLMAN BRONZE & ALUMINUM CO.

2516 EAST 93rd STREET • CLEVELAND, OHIO

For more details circle NED-8582 on enclosed inquiry slip

DEAD-CASE THERMOSTAT has range from 32 to 400° F



Rated at 500 w capacity, dual action Dual Mite thermostat has operating range from 32 to 400° F. It has high thermal sensitivity and can be calibrated to close thermal limits. Instrument has dielectric rating of over 1300 v. Insulated aluminum case measuring 2⅝ in. long by ⅝-in. wide can be supplied with choice of terminals or leads to meet specific applications. Made by **Mechanical Industries Production Co.,** 219 Ash St., Akron 3, O.

For more details circle NED-8583 on enclosed inquiry slip

MANOMETER & FLOWMETER measures low pressure differences

Operating from noble metal thermopile, this sensitive electronic manometer and flowmeter has dual range of 0.001 to 0.1-in. and 0.1 to 2 in. water. Two taps on gage tube are connected to two points at which pressure difference is to be measured. For use as flowmeter, tube is placed directly in line for low flow rates or connected to pressure taps on two sides of calibrated orifice for high flow rates. Instrument can be used for direct indications or attached to recorder. Accessories available include five-position switching attachment and constant voltage transformer. Made by **Hastings Instrument Co.,** Super Highway & Pine Ave., Hampton 10, Va.

For more details circle NED-8584 on enclosed inquiry slip

ONE-MAN CHAIN SAW single file stroke sharpens teeth

A fast-cutting chain effective on all types of wood is main feature of improved DO-101 one-man chain saw. Standard Kiekhafer 3.5-hp engine drives saw. Chain employs a small tooth with lowered cutting edge, short pitch and rounded guiding lug that regulates depth of cut. Smaller in overall size than on previous models, cutting tooth has greater length for long sharpening life. Single file stroke that hits all cutting edges sharpens teeth. Guide rail lengths designed for the F chain are 20, 26, 32, 36 and 40 in. Raised toggle switch facilitates easy switching on and off even in heavy work gloves. Made by **Henry Disston & Sons, Inc.,** 929 Tacony St., Philadelphia 35, Pa.

For more details circle NED-8585 on enclosed inquiry slip

BLACK & DECKER PORTABLE GRINDERS 5" and 6" wheel diam.

Switch to Black & Decker POWER!

B&D PORTABLE GRINDERS let you bring the tool to the work when work is heavy, bulky, hard to move. Prepare surfaces for welding; smooth welds; snag and grind castings; remove rust, scale, old paint; cut off old rivets, studs, bolts; grind, clean and buff frames, cabinets, etc. Many features to *speed up* work: perfect balance for easier handling; splined gear mountings for perfect power transmission; steel bearing inserts for smooth running; complete abrasive dust protection for vital parts. See your nearby B&D Distributor for a demonstration. Write for free catalog to: THE BLACK & DECKER MFG. CO., 662 Pennsylvania Ave., Towson 4, Md.

LEADING DISTRIBUTORS EVERYWHERE SELL

Black & Decker PORTABLE ELECTRIC TOOLS

For more details circle NED-8586 on enclosed inquiry slip

Calling all users of Speed Reducers!

Get the new Cleveland Book FREE

Bulletin 130 gives rating tables, dimensions and other data you need in selecting the right sizes in standard worm-gear speed reducers. Ask for your copy.

New bulletins on other types of Cleveland worm gear drives and worm-gear sets also available. Outline your needs. The Cleveland Worm & Gear Co., 3283 E. 80th St., Cleveland 4, Ohio.

CLEVELAND Worm Gear Speed Reducers

For more details circle NED-8587 on enclosed inquiry slip

Weld-Bilt Spring Bearing Trucks

"SHOCK-CUSHION" YOUR PRODUCT AGAINST DAMAGE!

You save time, labor, men, floors and product damage when you put WELD-BILT SPRING BEARING TRUCKS on every handling job. Unique SPRING BEARING axle *absorbs* all floor shocks and wheel vibrations—for easier, faster trucking, longer truck life.

WRITE FOR BULLETINS NOW—on Weld-Bilt SPRING BEARING Platform and Two-Wheel Trucks.

WEST BEND EQUIPMENT CORP.

311 WATER STREET, WEST BEND, WISCONSIN

MATERIALS HANDLING ENGINEERS

Hydraulic Lift Trucks, Two and Four-Wheel Trucks, Tiering Machines, Skid Platforms, Barrel Trucks and Racks, Portable Elevators and Special Equipment.

For more details circle NED-8588 on enclosed inquiry slip

STOP! INJURIES AND WORK INTERRUPTIONS

from falling fluorescent-tube accidents

Economical, easily installed Den-El SAFETY GUARDS hold flourescent tubes firmly in sockets whenever a sudden jolt or continuous vibration occurs.

Made of resilient stainless steel, permanent installation requires simply tightening nut on a precision-made machine screw. The band that holds tube, as shown in photograph, is easily pulled aside when lamps are cleaned or replaced and resumes holding position when released.

Two guards are required for each tube. They are made in two sizes: for 40 watt tube at 17c each and 100 watt tubes at 20½c each. Don't wait for accidents to happen! Den-El guards are economical protection against falling glass and possible serious injury in factories, shops, offices, stores.

ORDER TODAY DIRECT OR SEND FOR COMPLETE DATA
ALL ORDERS SHIPPED DIRECT FROM PHILADELPHIA

A DEPENDABLE GUIDE TO SAFETY
GENERAL SCIENTIFIC EQUIPMENT COMPANY
TESTED INDUSTRIAL SAFETY PRODUCTS

2701 W. Huntingdon St. Philadelphia 32, Pa.

RESPIRATORS • PUMPS • GOGGLES • SHIELDS • GLOVES • APRONS • HELMETS

For more details circle NED-8589 on enclosed inquiry slip

WHY BUY CONTAINERS?

Let the TOTE SYSTEM handle

- RAW MATERIALS TO YOUR PLANT
- FINISHED PRODUCTS TO CUSTOMERS
- PRODUCTS IN-PLANT

ONE TOTE BIN
WILL DO THE WORK OF
20,000 BAGS!

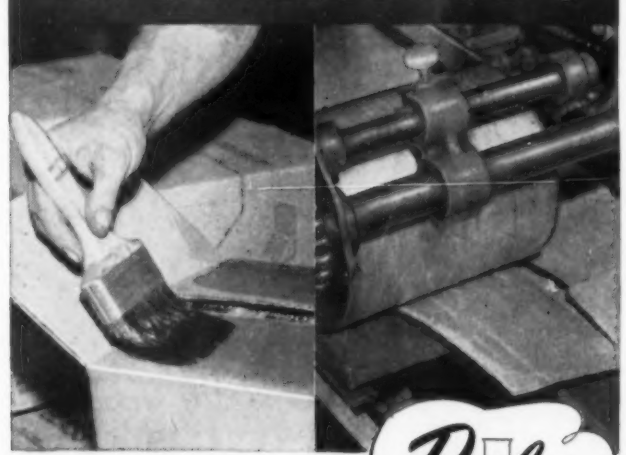
TOTE SYSTEM saves labor, product loss, bag cost and it's sanitary!

Let us make you a proposal applying the Tote System.
Write Dept. J

TOTE SYSTEM, INC.
720 So. 7th Street
BEATRICE, NEBR.

For more details circle NED-8590 on enclosed inquiry slip

Seal CASES IN 20 SECONDS!



Paisley SCIENTIFIC ADHESIVE SERVICE

BOXEAL is the new *fast setting* Shipping Case Glue which tears fibres 15 to 20 seconds after application by brush or machine. Brings new high speed and efficiency to all production lines where short pressure time is essential. BOXEAL permanently seals all types of shipping boxes, corrugated, Fourdrinier kraft, jute, solid fibre. Non-toxic, odorless, stainless, and most of all . . FAST SEALING!

Get our complete laboratory report on Paisley BOXEAL and take advantage of the offer to send a trial 5 gallon shipment at the 55 gal. drum price available to all drum users of shipping case glues. We'll ship ON APPROVAL, F.O.B. our nearest plant, New York or Chicago. Fill in the coupon below, attach it to your letterhead, and mail it to us TODAY.

FILL IN & MAIL COUPON NOW FOR GENEROUS TRIAL OFFER

Gentlemen: Please send complete information about Paisley BOXEAL Shipping Case Glue.

☐ You may send, on approval, trial 5 gal. shipment of "BOXEAL" at 55 gal. drum price.

☐ Send me a copy of Laboratory Report on "BOXEAL".

FIRM _____

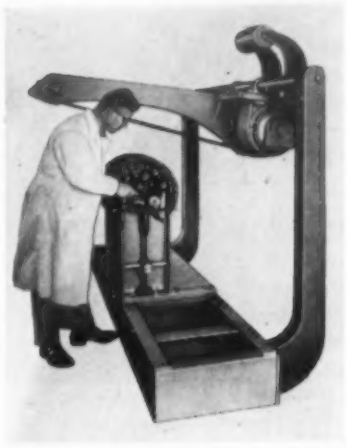
STREET _____ CITY _____

BUYER _____

PAISLEY PRODUCTS INCORPORATED
Manufacturers of Glues, Pastes, Resin Adhesives, Cements and Related Chemical Products
1770 CANALPORT AVE., CHICAGO 16, ILL. • PHONE CANAL 6-2219
630 W. 51st STREET, NEW YORK 19, N. Y. • PHONE COLUMBUS 5-2860

For more details circle NED-8591 on enclosed inquiry slip

DYNAMIC BALANCING MACHINE handles 80-in. long 4000-lb loads



Position of dynamic unbalance of up to 48-in. diameter rotating components 80 in. long and weighing 4000 lb can be determined accurately with this Wagner universal dynamic balancer so that corrective weights can be added. Driving mechanism composed of 5-hp motor and counterbalanced arm with five V-belts is lowered to contact work to be rotated. Starting button is pushed, and when desired speed is reached, the arm is raised. While rotating, shaft is marked with crayon or pencil. Rotation can be stopped quickly by lowering the arm and pushing reverse control button. Made by **Industrial Engineering Equipment Co.**, 122 E. Fourth St., Davenport 10, Iowa.

For more details circle NED-8592 on enclosed inquiry slip

RATCHET SCREW DRIVERS lessens screw burring possibility

Design of Palm-Grip ratchet screw drivers permits direct, even pressure and maximum leverage on every application. It has three-position standard ⅜-in. drive ratchet that is reversed by flick of finger. Grip fits into hand smoothly. Because of direct pressure, screw driver can be used in inaccessible locations and with less danger of screw burring. Tools are offered with regular, Phillips and Clutch Head blades in several sizes. Made by **Kipton Industries**, Dept. K-1, 16 W. Main St., Norwalk, O.

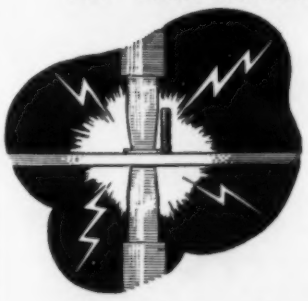
For more details circle NED-8593 on enclosed inquiry slip

PIPE & TUBE DESCALER removes rust, scale and paint

Single pass of pipe, posts and building columns through rollers of this descaling and cleaning attachment for Steen cut-off machines removes rust, scale, paint and other deposits. Used pipes and tubes are thus reclaimed for further application. Suitable for production work and intermittent use, device feeds up to 20 ft of pipe per minute, and sizes are available for diameters up to 12 in. Made by **Continental Machine Co.**, 1954 N. Maud Ave., Chicago 14, Ill.

For more details circle NED-8594 on enclosed inquiry slip

OHIO WELD SCREWS
For Economical Spot Welding



Ohio
SS Spotweld Screws

Thread Sizes,
No. 8-32 to ⅜-16

Materials: Low Carbon Steel, Brass or Stainless Steel

For Dependable Projection Welding
Ohio GW and HW Weld Screws

Thread Sizes,
No. 6-32 to ½-20

Materials:
Low Carbon Steel
Brass or
Stainless Steel

For list of stock sizes and samples, send to
The Ohio Nut & Bolt Company
608 FRONT STREET • BEREA, OHIO

For more details circle NED-8595 on enclosed inquiry slip

WHAT ARE YOUR MAGNETIC SEPARATOR PROBLEMS?

Remington Rand, Inc., Tabulating Machine Division, Ilion, New York, are one of many manufacturers using Homer Magnetic Separators to cut sorting and handling costs in the processing of ferrous metal parts.

In the operation above, ferrous tabulating machine parts are quickly sorted from abrasive tumbling stones, saving many valuable man hours, and permitting the handling of larger quantities of finished parts. If you have a similar problem—consult us at once—Homer Engineers will be glad to recommend the type of magnetic equipment you need. Bulletins upon request.

The HOMER MANUFACTURING CO., Inc.
Dept. I-25 LIMA, OHIO

Producers of Magnetic Separator Equipment Since 1923

For more details circle NED-8596 on enclosed inquiry slip

For Safety's Sake Use
DAYTON SAFETY LADDERS

Maintenance men everywhere rely on Dayton Safety Ladders for maximum safety and convenience. Daytons are constructed of tested airplane spruce and reinforced with rigid steel supports to give great strength and lightness of weight.

Handrails of steel guard the large roomy platform for added safety. Half of platform can be raised to form an extra step, when needed. These famous ladders can be set up instantly, are easy to carry and fold compactly for storing. Automatic locking feature insures safety while ladder is in use.

Sizes 3 feet to 16 feet in height (measured from ground to platform) with standard rubber safety shoes at no extra cost.

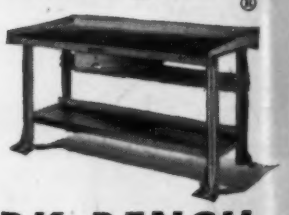
Write today for Bulletin No. 10

DAYTON SAFETY LADDER CO.
2339 GILBERT AVE. CINCINNATI, OHIO
In Canada—Safety Supply Company—Toronto

For more details circle NED-8597 on enclosed inquiry slip

A PRIZE... IN ANY MAN'S LANGUAGE

HALLOWELL®



STEEL WORK BENCH

Everyone dreams of hooking the *biggest* fish... everybody wants a *HALLOWELL* Bench. They're both *prizes* in any man's language!

The man who buys a HALLOWELL likes its *standard-unit design* which simplifies plant layout, its *tough, steel construction* which reduces maintenance and replacement for years to come, and its *trim, good looks* that improve shop appearance.

The man who works at a HALLOWELL likes its *smooth, splinter- and oil-proof, durable* work surface, its *rock-solid sturdiness* and its *convenience*.

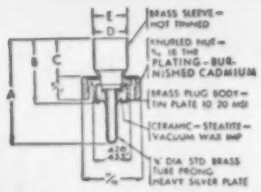
Whether you buy or use work benches, you'll want to look over Bulletin 701.

Write for your copy today.

SPS STANDARD PRESSED STEEL CO.
JENKINTOWN 24, PENNSYLVANIA

For more details circle NED-8598 on enclosed inquiry slip

Ideal for ANTENNA CONNECTIONS PHOTO-CELL WORK MICROPHONE CONNECTIONS



SUPPLIED IN 1 & 2 CONTACT TYPES

JONES
SHIELDED TYPE
PLUGS & SOCKETS

P-101-¼

P-202-CCT

S-101

S-202-B

LOW LOSS PLUGS AND SOCKETS FOR HIGH FREQUENCY CONNECTIONS

For quality construction thru-out, and fine finish, see diagram above.

101 Series furnished with ¼", .290", 5/16", ⅜", or ½" ferrule for cable entrance. Knurled nut securely fastens unit together. Plugs have ceramic insulation; sockets bakelite. *Assembly meets Navy specifications.*

202 Series Phosphor bronze knife-switch type socket contacts engage both sides of flat plug contacts—double contact area. Plugs and sockets have molded bakelite insulation.

For full details and engineering data ask for Jones Catalog No. 17

JONES MEANS PROVEN QUALITY

HOWARD B. JONES DIVISION
CINCH MANUFACTURING CORPORATION
CHICAGO 24, ILLINOIS
SUBSIDIARY OF UNITED-CARR FASTENER CORP

For more details circle **NED-8599** on enclosed inquiry slip

WELDING WIRE FEED DEVICE
used with gas shielded arc welders to speed filler metal application

Operator of gas shielded arc welder can control continuous flow of filler metal automatically by means of finger switch mounted on torch when Fillerweld welding attachment is used. It allows operator to start or stop flow of filler metal without breaking arc. Device consists of two main elements, torch or gun and mechanical power unit.

Gun is basically a manual water-cooled inert-arc tungsten holder to which has been added a control switch and gear assembly for pulling filler metal from spool to arc through gun. Rated at 250 amp, gun accommodates tungsten from 0.040 to 5/32-in. diameter and 7 in. long. Mechanical power unit consists of motor for drawing filler metal, Thy-mo-trol unit for controlling motor speed and spool for filler wire. It is mounted on portable platform. Process is best applied on stock less than $\frac{3}{16}$-in. thick, but will weld on thicker metal at lower speed. Made by **General Electric Co.**, Schenectady 5, N. Y.

For more details circle **NED-8602** on enclosed inquiry slip

It's as easy as this to

ISOLATE VIBRATION
and
SAVE MONEY
with ISOMODE Pads*

Here's the durable mounting to absorb shock...reduce noise ...cut your maintenance costs. In hundreds of installations, the Isomode Pad has proved to be not only one of the most economical mounts, but also one which does a superior job of isolating vibration.

By absorbing forces normally transmitted to floor, Isomode Pads reduce building damage and undue deterioration of machinery. No bolting in most cases.

Made of oil, age- and water-resistant Du Pont Neoprene. Write for details—discover their surprisingly low cost.

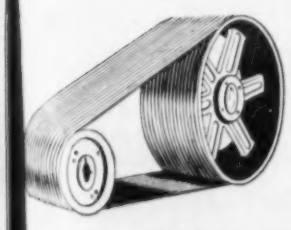
**Trade Mark Reg. U.S. Pat. Off.*

THE MB MANUFACTURING COMPANY, INC.
1066 State St., New Haven 11, Conn.

For more details circle **NED-8605** on enclosed inquiry slip

CONGRESS SHEAVES and V-BELTS

- Precision built. Soundly engineered. Widely used as original equipment by hundreds of the largest manufacturers of such appliances as washing machines, dryers, laundry equipment and air conditioning installations.
- Congress FHP pulleys are available in attractive 3-color individual boxes, with pulley outside diameter and bore size plainly marked. Simplifies storing-selling.



Immediately Delivery From Stock

WRITE FOR CATALOG

CONGRESS DIAMOND BORED DRIVES
3750 E. OUTER DRIVE, DETROIT 34, MICH.

For more details circle **NED-8600** on enclosed inquiry slip

CONTOUR SAWING MACHINE
tool speed ranges from 25-6000 fpm

Three speed transmission and Speedmaster drive that provide tool velocities ranging from 25 to 6000 fpm allow model V-36-3 contour sawing machine to perform all types of conventional metal sawing or filing and high speed cutting of nonferrous metal and composition materials. Also capable of light gage alloy friction cutting, machine is 81 in. high and requires 40 x 76-in. floor space. Normally carrying saw band over three wheels, machine has 36 in. throat. With blade shortened after several weldings, it can be used over two wheels with 16-in. throat. Equipment includes built-in blade welders with squaring shear, motorized grinder and thickness gage, assorted band tools and guides, automatic power feed, job selector dials, speed indicator and chip blower. Made by **DoALL Co.**, 256 N. Laurel Ave., Des Plaines, Ill.

For more details circle **NED-8603** on enclosed inquiry slip

HERC-ALLOY SLING CHAINS

PREFERRED... because of proved advantages in use

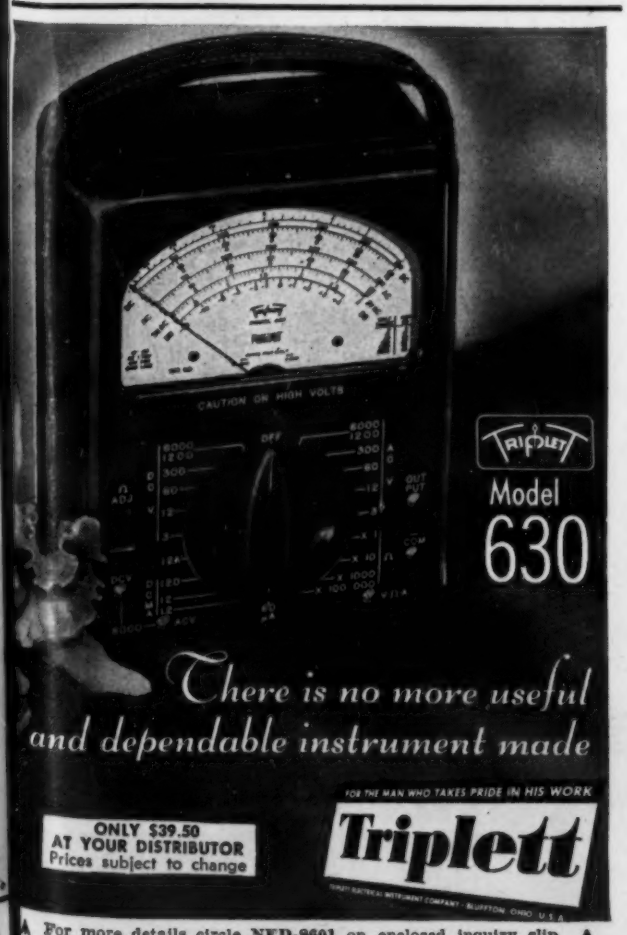
Production Executives and Safety Directors look for many things in a sling chain—greatest strength, maximum safety, lighter weight, handling ease, resistance to wear, minimum cost against service life.

Because they found all these advantages in HERC-ALLOY by on-the-job experience, it became a matter of course to prefer and specify HERC-ALLOY Sling Chains.

Write for illustrated Data Book No. 3 which contains helpful information on sling chain selection and use.

COLUMBUS McKINNON CHAIN CORPORATION
(Affiliated with Chisholm-Moore Hoist Corp.)
GENERAL OFFICES AND FACTORIES: TONAWANDA, N. Y.
District Offices: New York • Chicago • Cleveland
Other Factories at Angola, N. Y., Dixon, Ill., St. Catharines, Ont., Can., and Johannesburg, South Africa.

For more details circle **NED-8606** on enclosed inquiry slip



There is no more useful and dependable instrument made

ONLY $39.50 AT YOUR DISTRIBUTOR
Prices subject to change

FOR THE MAN WHO TAKES PRIDE IN HIS WORK
Triplett

For more details circle **NED-8601** on enclosed inquiry slip

For HIGHEST MECHANICAL *EFFICIENCY*

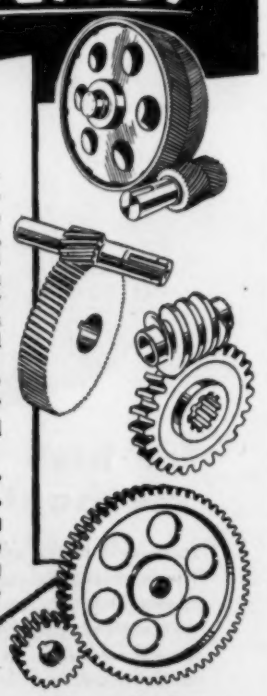
IG GEARS

GEAR SPECIALISTS

There are no side lines at "Industrial". Our vast production facilities are devoted exclusively to Gear, Sprocket and Rack Cutting, including splined shafts and thread grinding. Mass production economy is assured on large or small lots . . . and your needs receive prompt, personal attention.

We also produce "I. G." Durocase "Steel Mill Type" Gears, with case hardened teeth for shock loads.

HERRINGBONE • SPUR • BEVEL • MITRE • HELICAL • ANGULAR • INTERNAL • SPIRAL • WORMS and WORM WHEELS • GENERATED TOOTH RACKS • SILENT and ROLLER CHAIN SPROCKETS •



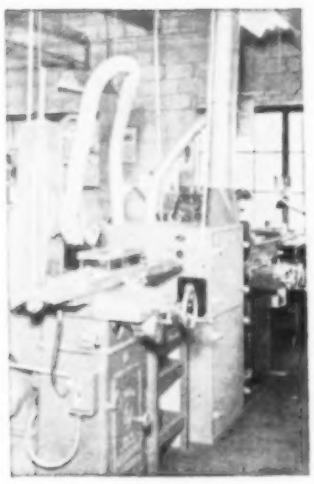
Send us your Specifications
Also write for Bulletin No. 149

Industrial Gear Mfg. Co.
4541 W. VAN BUREN ST.
CHICAGO 24, ILL.

For more details circle **NED-8604** on enclosed inquiry slip

APPROVED...
by customer
by workmen
by industrial commissions

TORIT DUST COLLECTORS



Here a Torit No. 84 Dust Collector is meeting all the requirements of the customer, the workers, and a state commission, in trapping and cleaning dust laden air from two surface grinders. The only special adaptation necessary was to connect the exhaust vent to a pipe leading through the roof—a special condition in this state.

Compact and self-contained Torit Dust Collectors are exceptionally easy to fit into present and future production set ups. Installation and operating costs are low and efficiency is high. Today, well over 20,000 are in use throughout American industry.

If you have an industrial dust problem, write today for complete information, and latest Torit catalog.

TORIT Manufacturing Co.
298 Walnut Street • St. Paul 2, Minn.

For more details circle **NED-8607** on enclosed inquiry slip

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Attention! INSTRUMENT ENGINEERS and PLANT ENGINEERS

Get This Information-Packed Literature Now If you specify, buy or maintain instruments that record, control or measure temperature and or pressure, then you should have a complete set of Gotham catalogs in your file.

Write for these data-filled catalogs today.

Keep Everything Under Control With Gotham

GOTHAM INSTRUMENTS

DIVISION OF AMERICAN MACHINE AND METALS, INC.
Dept. 1, 233 Broadway, New York, N. Y.

For more details circle **NED-8608** on enclosed inquiry slip

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Remove Dusty and Humid Air with *Peerless-Electric* INDUSTRIAL EXHAUST FANS

● Peerless Electric PVB exhaust fans are widely used in factories, warehouses, foundries, etc., and may also be installed in ducts where low static pressure resistance is encountered. Because of complete ball bearing construction, the fans may be mounted in either vertical or horizontal positions.

FIVE FAN SIZES

The fans are made in 24", 30", 36", 42" and 48" diameters. Self-aligning ball-bearing pillow blocks provide rigid support. Bearings are pre-lubricated and equipped with labyrinth steel seals to retain the lubricant and to exclude dust and moisture.

MOTORS

The motors range from ¼ to 1½ H. P., single-phase Capacitor-Induction and three-phase Induction types, are equipped with ball bearings and are totally enclosed, rigid mounted, and operate at 1750 RPM on 60-cycle current. Motors with other characteristics also available.

AUTOMATIC WALL SHUTTERS

Automatic wall shutters of same sizes as fan diameters also are available.

Write for complete specifications on Peerless Electric PVB Industrial Exhaust Fans and Automatic Wall Shutters.

THE PEERLESS ELECTRIC COMPANY
Established 1893 • *WARREN, OHIO*

Peerless-Electric MOTORS·FANS·BLOWERS

For more details circle **NED-8609** on enclosed inquiry slip

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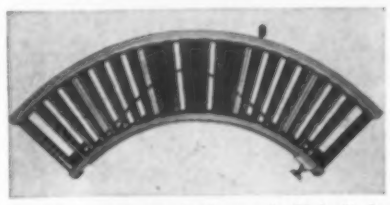
ROLLER CURVE CONVEYOR
powered unit has tapered rollers



Use of tapered rollers on this 90-degree power roller curve conveyor provides efficient package control with no skewing or jamming action. Conveyor is powered through V-belt by standard open frame, totally enclosed or explosionproof motor or from adjacent conveyor. Heavy duty belt, which provides friction drive to lower side of tapered rollers, rides in sheaves mounted on oilless bushings to guide it around arc of curve and maintain pressure against load rollers. Easily removed V-belt is tensioned by simple adjustment. Curve section is built to be combined with other sections. Made by **Alvey-Ferguson Co.**, Dept. NE, 75 Disney St., Cincinnati 9, O.

For more details circle **NED-8610** on enclosed inquiry slip

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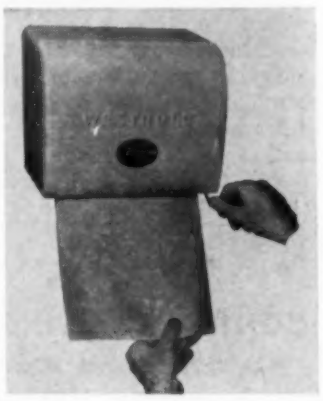
PAPER TOWELS & DISPENSER
crank winds out toweling needed



Incorporation of stainless steel crank on Westroll paper towel dispenser enables user to wind out only amount of toweling needed. Micromatic cabinet is available in three models gaged to amount of traffic in washroom. Tests show average person uses 17 in. of Westroll towel as compared with 22 in. where amount dispensed is nonselective. Toweling and dispenser available from **West Disinfecting Co.**, Dept. DE, 42-16 West St., Long Island City 1, N. Y.

For more details circle **NED-8611** on enclosed inquiry slip

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FULL-REVOLVING DERRICK
can be swung by hand or power

Built with tail swing of 5 ft 6 in., model W-3 self-contained full-revolving steel derrick requires no stiff-legs or guy lines for operation in congested areas. It is available with gasoline or electric power and can be swung by hand or power. Rotating structure which supports boom and structural members also holds hoisting machinery. Boom lengths of 20, 30 or 40 ft are available with load capacities from 2000 lb at 40 ft radius to 10,000 lb at 10-ft radius. Made by **Clyde Iron Works, Inc.**, P. O. Box 370, Duluth 1, Minn.

For more details circle **NED-8612** on enclosed inquiry slip

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GEROTOR hydraulic PUMPS

for high volumetric and mechanical efficiency

Exclusive GEROTOR elements revolve in the same direction at low relative speed, resulting in less wear, longer life. Continuous fluid-tight tooth engagement means less slippage, more uniform flow. Pressures up to 1000 p.s.i., continuous duty; in some sizes, up to 1200 p.s.i. continuous, 1500 intermittent. Plain, base or flange mounting. Write for catalog.

GEROTOR hydraulic pumps & motors
GEROTOR MAY CORPORATION, Baltimore 3, Md.

For more details circle **NED-8613** on enclosed inquiry slip

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30-DAY DELIVERY!

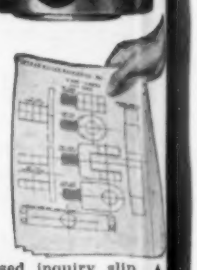
SIMPLEST... MOST COMPACT

O-M AIR HYDRAULIC WATER CYLINDERS

Speed production, cut costs and save space with Ortman-Miller cylinders. Full range of sizes (1-½" to 8" bores) now *available for early delivery.* All machined steel and bearing bronze. Interchangeable parts and mounting Brackets. Write today!

FREE TEMPLATES

Shows the full line in ½ scale. Request your free complete set now.



ORTMAN-MILLER MACHINE CO., INC.
1222-4 150th Street, Hammond, Indiana

For more details circle **NED-8614** on enclosed inquiry slip

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MORE SOLD THAN ANY OTHERS
Write for Catalog OF USES AND SPECIFICATIONS

GENERAL
Industrial Pneumatic Tires

..SAVE TIME·LABOR·MONEY
Protect equipment and floors • Reduce Breakage

- ★ *Wide Base Wheel*
- ★ *More Air Volume*
- ★ *More Stability*
- ★ *More Load Capacity*
- ★ *Longer Miles in Hi-Speed Service*

Available separately or in assemblies of Tires, Tubes and Wheels. Size O. D. 8" to 27"—200 to 4000 lbs. cap. for low and high speeds.

Rigid* CASTER FORKS *Swivel

Wide-base caster forks engineered to carry heavier loads without adding dead weight to equipment. Available in identical pairs in a wide range of sizes.

Send for Catalog • Dept. 4

THE GENERAL TIRE & RUBBER CO. AKRON, OHIO

For more details circle **NED-8615** on enclosed inquiry slip

MOLDED CARBON and GRAPHITE Specialties

Seldom can any material surpass carbon and graphite for practical solutions to problems involving friction, high temperatures, corrosion, shaft sealing, and arcing.

Let This Booklet Help You!

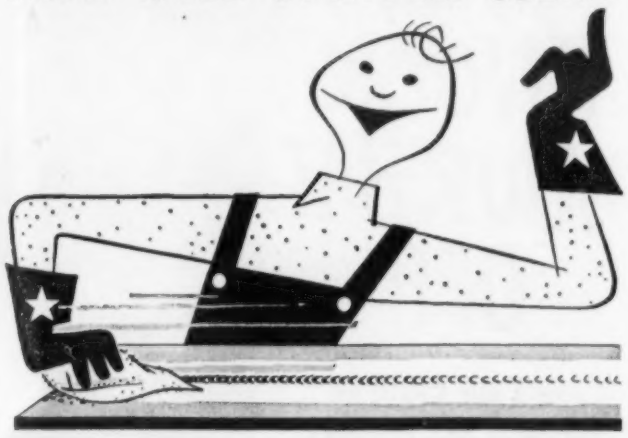
Write on company stationery for your copy of the Stackpole Carbon Specialties Book 40. Besides describing dozens of Stackpole items, it contains interesting evidence of the amazing versatility of carbon and graphite in modern design and engineering.

STACKPOLE

STACKPOLE CARBON COMPANY
St. Marys, Penna.

For more details circle NED-8616 on enclosed inquiry slip

WIPE WELD SPATTER CLEAN



Don't fight with weld spatter. Wipe it off in a flash and save up to 85% of weld cleaning labor. Simply brush Protect-O-Metal No. 2 on weld area and adjacent surfaces, weld, and unsightly troublesome weld spatter wipes clean with a dry cloth. Get smooth, clean welds ready for painting if desired. P. O. M. No. 2 does not cause smoke, fumes or odors; contains no organic ingredients. One coat serves for single or multi-pass welds, costs a tenth of a cent per foot of weld, saves up to three times its cost in time savings alone. Order a trial gallon ($3.25).

PROTECT-O-METAL
POM

G. W. SMITH & SONS, INC., GWSMITH 5406 KEMP ROAD, DAYTON, O.

For more details circle NED-8617 on enclosed inquiry slip

VULCAN

ELECTRIC HEATING UNITS

VULCAN ELECTRIC CO
DANVERS MASS

For more details circle NED-8618 on enclosed inquiry slip

SMALL PARTS HANDLING RACK

holds up to 12 removable trays and folds for ease of storage

Transporting and storage of small assemblies and metal, rubber, or plastic parts is facilitated by model No. 441 portable, heavy-duty materials handling racks which hold up to 12 removable trays stacked in six rows 12 in. apart. Measuring 24 x 31 in., trays have capacity of 70 lb, and racks, a total of 1500 lb. Of welded tubular frame construction and furnished with galvanized or painted finish, racks are 4½ ft high and narrow enough to pass through congested areas.

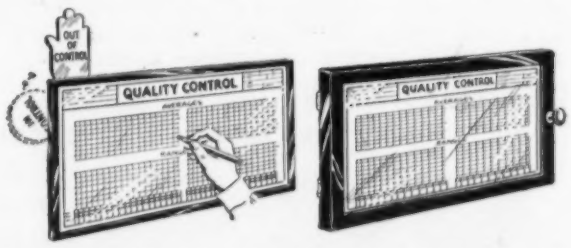
They roll on swivel caster type ball-bearing composition rubber wheels that lock for stationary uses. Trays are held in position by pivot type metal guards and are removed to allow folding of rack for storage. They can be fabricated of wire, in any size expanded metal, wire mesh or sheet metal. Made by **Coleman-Pettersen Corp.**, 2138 St. Clair Ave., Cleveland 14, O.

For more details circle NED-8619 on enclosed inquiry slip

QUALITY CONTROL UNITS

chart holders offered in types for in-process and record applications

Offered in two basic types and several standard sizes, quality control chart holders accommodate one, two or three charts each. Type A holder is for in-process con-



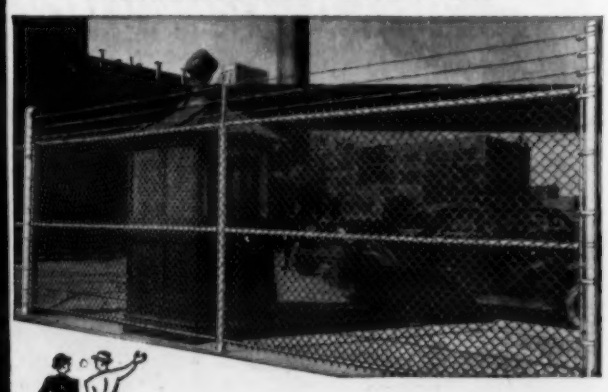
trol, and recording is done with grease pencil on transparent plastic window which protects actual chart form. Records can be copied or photographed and then erased for reuse of charts. Removable top on frame which protects ½-in. plywood backing facilitates insertion of chart form in holder.

Type B holders are used where chart recordings are employed as permanent records. Cabinet has steel frame, sealed ½-in. plywood backing, guide type steel chart retainers and clear plastic window fitted with hinges, knob and spring catch. Both holders are available with or without pivoted signals which consist of large red hand with "out of control" lettering and green ball with "in control" lettering. Signals are visible from either side and can be set quickly by inspectors or operators. Made by **Visi-Trol Corp.**, 9345-N Hubbell, Detroit 28, Mich.

For more details circle NED-8620 on enclosed inquiry slip

PAGE FENCE -Since 1883

• AMERICA'S FIRST WIRE FENCE •



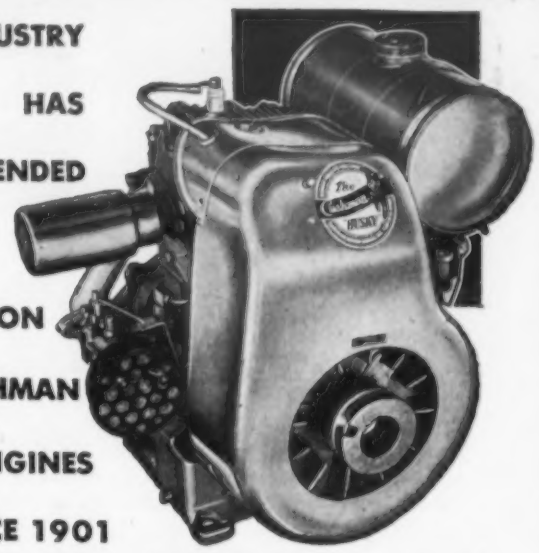
Defense against hazards which could hinder or stop production is a major function of Page Chain Link Fence, guardian of persons and property for more than 60 years. Consult the skilled Page Fence erecting firm near you, whose name we will send with fence data on request. Cost estimates, no obligation. For information:

Write to PAGE FENCE ASSOCIATION in Monessen, Pa., Atlanta, Bridgeport, Chicago, Denver, Detroit, Los Angeles, Philadelphia, New York or San Francisco.

PRODUCT OF PAGE STEEL & WIRE DIVISION OF AMERICAN CHAIN & CABLE COMPANY, INC.

For more details circle NED-8621 on enclosed inquiry slip

INDUSTRY HAS DEPENDED ON CUSHMAN ENGINES SINCE 1901



Compact, lightweight Cushman engines have proved their worth through 49 years of efficient and dependable service. Four-cycle, single cylinder L-head Cushman engines with 3 models developing from 1.5 to 6.0 H. P. are adaptable to hundreds of operations. Investigate today. Particularly suitable for original equipment installations requiring high-output, long-life engines. Factory Service thru our Established Nationwide Dealer Organization.

WRITE FOR SPECIFICATIONS AND PRICES—DEPT. 6Q

Cushman MOTOR WORKS, INC.
LINCOLN, NEBRASKA

For more details circle NED-8622 on enclosed inquiry slip

TORNADO® CLEANING

Saves YOU Time, Labor, Money

Modern plant maintenance demands modern equipment. Let Tornado speed up your cleaning time, reduce man hours and lower operator fatigue. The Breuer representative can quickly show you many improved methods for cleaning floors, walls, ceilings, fixtures, stairs and machinery.

TORNADO INDUSTRIAL VACUUM CLEANERS

Versatile and powerful machines for one stroke wet or dry positive pickup. Plenty of capacity for fewer emptying operations and attachments for every job. Bulletin 600.

For cleaning:

Floors, walls, ceilings, fixtures, stairs, machinery. Picks up dirt, dust, wood or metal chips, liquids or any combination.

TORNADO FLOOR MACHINES

A rugged and powerful machine that operates smoothly reducing operator fatigue. Self-retracting wheels and automatic brush coupler speed up operational time. Machines will scrub, polish, pumice, buff, wax, shampoo, steel wool and sand. Bulletin 583 For: Wooden and concrete floors, linoleum, asphalt or composition tile, carpets, and marble.

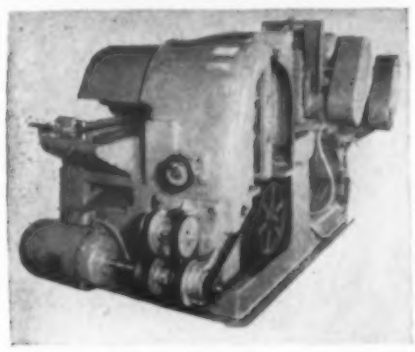
TORNADO PORTABLE BLOWER

A dependable blast of clean dry air that blows dirt, metal chips and oily fuzz out of electrical motors, machinery and other hard-to-get-at places. Attach a bag and hose and use it for a portable vacuum cleaner. Bulletin 579.

BREUER ELECTRIC MFG. CO.

5116 N. Ravenswood Avenue • Chicago 40, Illinois

For more details circle NED-8623 on enclosed inquiry slip



Worthington Allspeed Drive Tandem Belt Design

Its two-belt tandem design permits the widest range of instantaneous, stepless variations . . . far greater than single belt drives.

The tandem's narrower belt reduces flex wear, increases belt life (it's less affected by side compression).

Other features: easy replacement—all wearing parts bronze bushed—shielded, life-lubricated bearings. In-line input and output shafts. Can run in any direction. Available in 6 sizes from 1-15 hp, up to 16-1 ratios. Supplied with or without standard NEMA Frame 1750 rpm motors. Upright or horizontal frame. Extended control yoke available. *Worthington Pump and Machinery Corporation, Allspeed Drive Division, Holyoke, Mass.* AS.1.6

WORTHINGTON

THE GOOD RIGHT HAND OF INDUSTRY

For more details circle **NED-8624** on enclosed inquiry slip

BETTER CASTERS FOR LESS

Albion Series 90 Supremes

Prompt delivery

Write for Catalogue N-1

Supremes are the choice for heavy-duty service. Rated to 10,000 pounds capacity per set of four, Supremes feature drop-forged steel top plates, rolled-in and hardened raceways, Timken thrust bearings, and Hyatt roller bearings.

Wheel diameters—6" to 12", choice of metal, rubber or Texite wheels.

ALBION INDUSTRIES, Inc.
ALBION, MICHIGAN

For more details circle **NED-8625** on enclosed inquiry slip

For Pressures to 5000 psi.

Their faster action gives closer control of pressures

In Denison Pressure-Control Valves, *lower differential between opening and closing pressures* brings faster action . . . closer control of system pressures . . . a reduction in over-pressure and pressure-drop conditions.

Extremely close fit of all inner sealing surfaces also boosts efficiency by reducing leakage to near-zero.

The rugged, compact construction of Denison HydrOILic Valves saves space and simplifies circuit design. Available with threaded bodies, or for subplate mounting, they offer widest latitude for positioning in the system. Pressure control knobs can be placed in either of two positions. Remote control of the pressure unloading adjustment can also be utilized.

These advanced features are the result of a *quarter century* of research and manufacturing experience at Denison, by engineers who *specialize* in oil-hydraulic equipment.

Comparison quickly proves the many advantages of Denison HydrOILic Valves, as reported by users in every field. Check with Denison on any valve needs, for circuits to 5000 psi.

The DENISON Engineering Co.
5181 Dublin Road Columbus 16, Ohio

DENISON HydrOILics

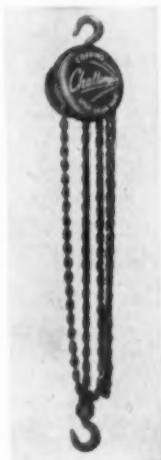
For more details circle **NED-8626** on enclosed inquiry slip

CENTRIFUGAL PUMPS light in weight, for general use

Suited for such applications as small cooling towers, hot water heating systems and booster and process pumping, type SCC general purpose centrifugal pumps are light in weight and easy to handle, install and mount. Of close-coupled type, they are equipped with mechanical seals. Motors are of standard open drip type. Standard mounting is vertical, but with addition of motor feet pumps can be adapted for horizontal mounting. Dismantling is by removing four accessible bolts on unit which has easily replaced impellers, wearing rings and mechanical seals. Standard pumps are bronze fitted, with casing and motor stand of cast iron. Two sizes are offered: 2-in. suction with 1¼-in. discharge and 1½-in. suction with ¾-in. discharge. Both operate at 3450 rpm, while capacities range to 100 gpm at heads to 120 ft. Made by **Economy Pumps, Inc.**, Dept. 32-C, Hamilton, O.

For more details circle **NED-8627** on enclosed inquiry slip

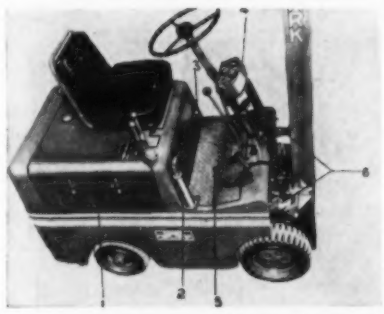
SPUR-GEAR HOIST made in ½ and 1-ton capacities



Challenger spur-gear hoists of ½ and 1-ton capacities weigh 39½ lb including length of high strength coil chain for 8-ft lift. Use of formed steel plate in housing offers strength and resistance to shock load breakage. Back plate is laminated to give supporting hoist mechanism rigidity. All load holding parts are of steel rated at five times capacity of hoist. It is built for quick disassembly with simple tools, thus easing servicing. Hoist is sealed and runs in lubricant. Made by **Coffing Hoist Co.**, 801 Walter St., Danville, Ill.

For more details circle **NED-8628** on enclosed inquiry slip

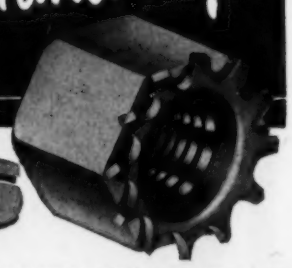
FORK LIFT TRUCK redesigned for faster maintenance



Improved features of gasoline powered Clipper fork lift truck are: (1) easy accessibility to engine compartment; (2) new pull-type parking brake; (3) recessed Protectoseal gas cap; (4) instrument panel mounted on steering column; (5) quick-change clutch; and (6) double cylinder tilt system. "No-kick-back" steering is achieved by Elliot-type axle with tie rods in same plane, plus relocation of steering knuckles closer to tire's dead-center shock point. Cushion tires on all models and rubber torsional bushings at pivot mounting points give better ride. Made by **Clark Equipment Co.**, Industrial Truck Div., 1952 Arze St., Battle Creek, Mich.

For more details circle **NED-8629** on enclosed inquiry slip

Try This Amazing New Shakeproof Fastening!



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The pre-assembled nut and "SHAKEPROOF" Lock Washer

Two parts are handled as one . . . lock washers can't drop off. Every nut is locked tight by the powerful tapered-twisted locking teeth of a "SHAKEPROOF" Lock Washer.

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SHAKEPROOF inc.
Division of Illinois Tool Works
2501 North Keeler Avenue, Chicago 39, Illinois

For more details circle **NED-8630** on enclosed inquiry slip

OLSON CONVEYORS for ALL Purposes

Engineered to really do the Job

Apron, Belt, Chain, Roller, Live-Roller, Slat, Trolley, and Wheel Conveyors — portable and stationary. Bucket and Push Bar Elevators — Spiral Chutes — Sparkless Conveyors for Munitions Plants—Special Conveyors for Shells, etc.

OLSON Specialized Experience is at your service in engineering material handling equipment for your requirements.

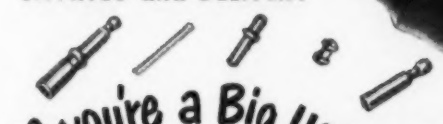
Tell us what you want to do or send for literature.

SAMUEL OLSON MFG. CO., INC.
2423 Bloomingdale Ave. Chicago 47, Ill.

For more details circle **NED-8631** on enclosed inquiry slip

We may KNOCK YOUR HAT OFF

with our Quote on SAVINGS and DELIVERY



If you're a Big User of Tiny Parts Such as These!

Sound like exaggeration? Not when you know the electronic tube industry looks to The Bead Chain Mfg. Co. for its millions of radio tube pins. Or, that builders of electrical apparatus turn to us for the contact pins, terminals, jacks and sleeves required in tremendous quantities.

PARTS FOR MANY MECHANICAL USES, TOO

SPRING ANCHOR FRICTION FASTENER PIVOT PIN

For pin-like parts, and variations of bushings needed for *mechanical* purposes, as well, we are the money-saving supplier to scores of makers of toys, business machines, appliances, ventilators, etc.

You Save . . . If we can make it! We can almost say with certainty that if we can make that part you use in large quantities, we can show you a big saving.

Nobody has What We Have! To produce Bead Chain to sell for pennies per yard, we had to develop *our own Multi-Swage Method.* Instead of turning and drilling parts, or stamping and forming them, our Multi-Swage Method automatically swages them from flat stock into precision tubular forms, with tight seams. By increasing the production rate many times and eliminating scrap, this saves a large part of the cost by other methods.

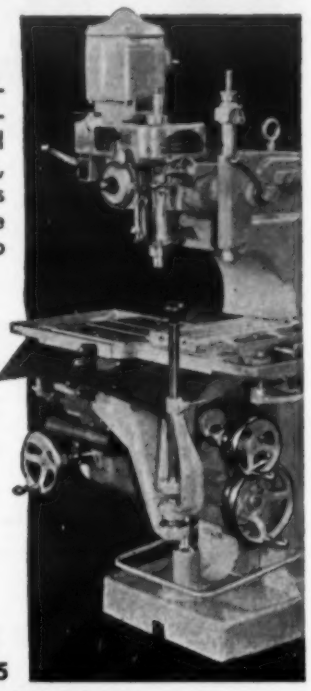
What We Can Make. Parts may be beaded, grooved, shouldered, of most any metal. Generally, should not exceed ¼" dia. or 1½" length. *Standard Items* available in small quantity. *Special Designs* must usually be ordered in lots of a half-million or more, unless frequently reordered.

Get Catalog and Cost Comparison. Send blueprint or sample and quantity requirements. Or write for Catalog-Data folder. The Bead Chain Mfg. Co., 16 Mountain Grove St., Bridgeport, Conn.

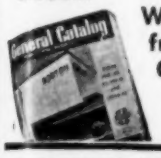
Let **BEAD CHAIN** make it by
MULTI-SWAGE METHOD

For more details circle **NED-8632** on enclosed inquiry slip

Cut Costs of Dies, Molds, Patterns with GORTON Tracer Control



Gorton Duplicators bring 3-dimensional work on dies, molds, forgings and patterns within the range of your semi-skilled men, who can obtain close tolerances with these highly sensitive machines. This Gorton Universal Duplicator has a tilting head and tracer and uses spindle speeds up to 10,000 r.p.m. — a machine that soon pays back its cost in reduced set-up time, finer work and stepped-up production — one of four models.



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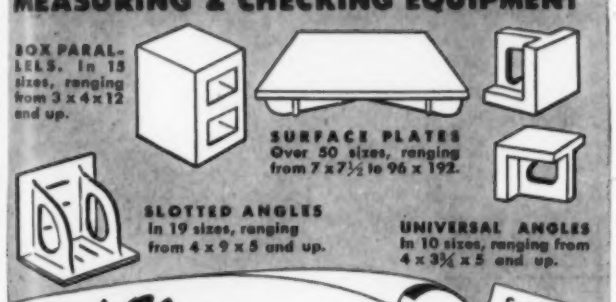
GEORGE GORTON MACHINE CO.
1911 RACINE STREET • RACINE, WISCONSIN

For more details circle NED-8633 on enclosed inquiry slip

Dependable MEASURING & CHECKING EQUIPMENT



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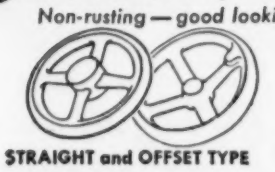
and Now HAND WHEELS, KNOBS, HANDLES

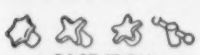
Cadmium Plated READY TO DELIVER

Non-rusting — good looking



STRAIGHT and OFFSET TYPE

SOLID ROTARY MACHINE HANDLES



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We also build jigs, fixtures, special tools and machinery. Send us your blueprints.

MACHINE PRODUCTS CORPORATION
6771 E. McNichols Road • Detroit-12, Mich.

For more details circle NED-8634 on enclosed inquiry slip

Wolverine STANDARD ACTION TOGGLE CLAMP

A REAL ECONOMY CLAMP—SUITABLE IN OVER 75% OF APPLICATIONS

★ ★ ★

SIMPLE STRONG DURABLE

Don't overlook the cost-saving possibilities of using the basic, dependable Wolverine Standard Action Toggle Clamps wherever practicable. You will find them suitable in many of your applications where the special advantages of the Wolverine Quick Action Units are not essential. There is a Wolverine Toggle Clamp to suit your needs. You will find them superior in quality and lower in cost. *Write for Bulletin C-106.*

IMMEDIATE DELIVERY

WOLVERINE TOOL CO.
1482 E. WOODBRIDGE
DETROIT 7, MICHIGAN

SINCE 1926 OUR 25TH YEAR

For more details circle NED-8635 on enclosed inquiry slip

LIGHTING FIXTURES are sealed against flammable dusts

Hazardous locations where flammable or explosive dusts are present can be safely illuminated with line of type DL dust-tight lighting fixtures. Lamp-holders are located within conduit box assembly of available pendent and junction box types, allowing installation and wiring without regard to size or style of fixture. All fixture-globe-reflector assemblies fit either base and are easily attached or interchanged by means of bayonet slot and screw arrangement without disturbing electrical connections. Pendant and junction box bases are standard to all fixtures and accommodate any style assembly in either 100 or 200-w sizes. Complete line is cast aluminum alloy designed to prevent accumulation of dust particles. Made by **Russell & Stoll Co.**, Dept. 7151-15, 125 Barclay St., New York 7, N. Y.

For more details circle NED-8636 on enclosed inquiry slip

SCREW STARTER for hard-to-get-at applications

Spring tension of 2½ in. size Screwstarter will hold up to 15 lb pull on screw. Tension automatically releases when screw is driven tight. Small size of device makes it useful for electrical, radio, assembly and other hard-to-get-at screw starting jobs. Made by **Bingham-Herbrand Corp.**, Herbrand Div., Fremont, O.

For more details circle NED-8637 on enclosed inquiry slip

BULK MATERIAL PACKER fills wide, narrow mouth containers

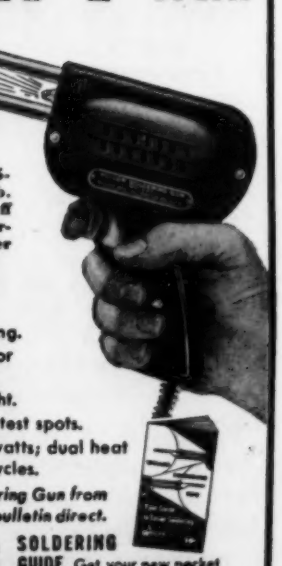
Right angle travel for corner installation

Granular and powdered materials can be tightly packed in flat bottom containers in broad range of sizes and shapes by custom-made Whiz-Packer high speed packer. Automatic rotary and conveyor combination uses vibration to pack materials in wide or narrow mouthed containers. Design of adapter spouts to container opening controls dust. Group of containers is filled and vibrated at same time in rotary section before going on outgoing side of conveyor. Conveyor outlet can be built with discharge to position of initial feed, in-line arrangement, special hand-feed arrangement for extra long tube containers and conveyor outlet and right angle travel for corner installation (illustrated). Made by **Frazier & Son**, 336 Cortlandt St., Belleville 9, N. J.

For more details circle NED-8638 on enclosed inquiry slip

Saves Time on light and HEAVY Work

250-Watt WELLER SOLDERING GUN



You need no other soldering tool. 5-second heating saves time on every job. Heat is instantly on . . . instantly off with trigger-switch control. Power-and-hours saved pay for your Weller Gun in a few months.

- TRIGGER-SWITCH CONTROL—No need to unplug gun.
- 5-SECOND HEATING—No waiting.
- WELLERTIP—Rigid and braced for heavy duty.
- SOLDERLITE—Prefocused spotlight.
- LONGER REACH—Gets into tightest spots.
- DUAL HEAT—Single heat 200 watts; dual heat 200/250 watts; 120 volts, 60 cycles.

Order your 250-watt Weller Soldering Gun from your distributor today, or write for bulletin direct.

WELLER ELECTRIC CORP.
809 Packer Street, Easton, Pa.

SOLDERING GUIDE. Get your new pocket copy of "Soldering Tips"—revised, up-to-date, fully illustrated 20-page booklet of practical soldering suggestions. Price 10c at your distributor, or order direct.

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NOW . . . live rubber added to INCREASE STRENGTH 200%

IMMEDIATE-SET FLOOR PATCH

The highly resilient, "fighting-back" quality of rubber triples the resistance of IMMEDIATE-SET to point loads, impact and shock. At sub-freezing temperatures the increase is much greater. For inside or outside use.

This is an entirely new idea. Results are amazing. Try it and be convinced.

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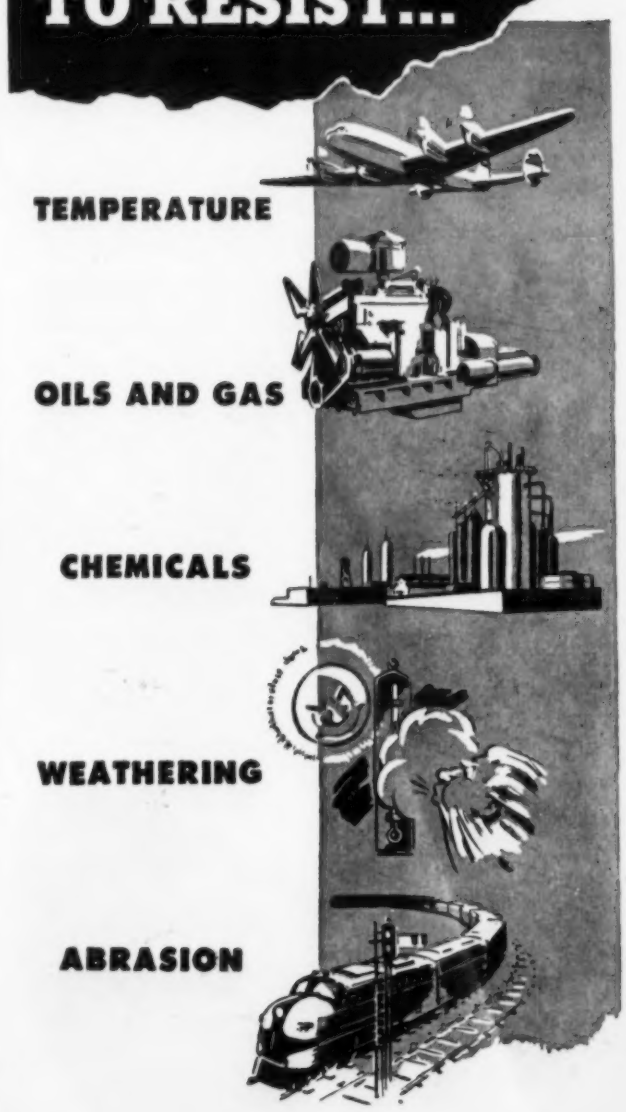
FLASH-STONE CO. INCORPORATED
32 E. RITTENHOUSE STREET
PHILADELPHIA 44, PA.

For more details circle NED-8640 on enclosed inquiry slip

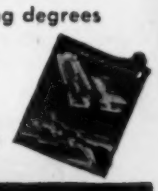
RUBBER PARTS TO RESIST...



STALWART-developed rubber compounds are available in mass produced parts to meet your applicational requirements.

Supplied in precision molded, extruded, die-cut and machine or hand-cut shapes, STALWART compounds retain their physical, chemical and dielectric properties regardless of adverse conditions.

STALWART rubber parts can have varying degrees of durometer, tensile strength, and elongation to meet individual, S.A.E. or A.S.T.M. specifications.



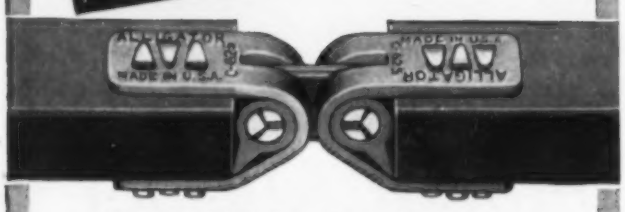
Write today for 16-page, multi-colored Catalog No. 51-SR-1.

STALWART RUBBER COMPANY
11151 Northfield Road • Bedford, Ohio

For more details circle NED-8641 on enclosed inquiry slip

Now you can fasten V-belts by using

ALLIGATOR V-BELT FASTENERS



● Alligator V-Belt Fasteners and open-end (long length) V-belting in rolls will enable you to make up multiple V-belt drives for a wide variety of applications.

Available for B, C and D sizes of V-belting.

Not to be used for repairing endless cord V-belts.

Bulletin V-211 will give you complete details. A copy mailed on request.

Order from your supply house

FLEXIBLE STEEL LACING COMPANY
4664 Lexington St., Chicago 44, Illinois

Also sole manufacturers of Alligator Steel Belt Lacing for flat conveyor and transmission belts and FLEXCO Belt Fasteners and Rip Plates for fastening and repairing conveyor belts.

For more details circle NED-8642 on enclosed inquiry slip

Fast, Fatigue-free ELECTROPUNCH Boosts Small Parts Production

The girl above stakes 3500 electrical switch blades per hour on the ELECTROPUNCH—and she can maintain this production all day, without strain. Production of 10,000 pieces per hour is attainable when automatic switching is used. This new, versatile electro-magnetic impact hammer is ideal for light staking, swaging, crimping, marking, riveting, or cutting operations. You can move it wherever you want and plug it in your nearest 115 V. outlet. Lightest model selling for only $90.75, the ELECTROPUNCH *quickly* pays for itself! Investigate its amazing time-saving features now!

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LIMIT SWITCHES for direct current application

Designed for direct current applications as in industrial, railway and street car equipment, series of small size magnetic blow-out snap-action switches are single-pole, double-throw type. Usable polarized or nonpolarized, electrical rating of switches is 10 amp on 115-v dc. Plastic case containing switching unit measures 1 15/16 x 11/16 x 27/32 in. and weighs less than 1 oz. Switches are available in pin plunger, leaf actuator (illustrated) and roller leaf actuator types. Made by **Minneapolis-Honeywell Regulator Co.**, Micro Switch Div., 205 S. Chicago Ave., Freeport, Ill.

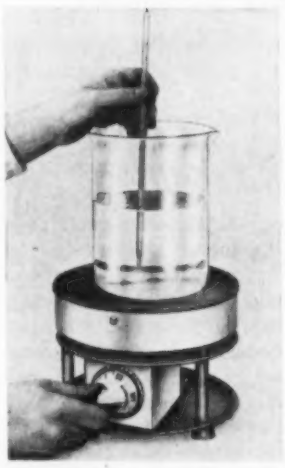
For more details circle NED-8645 on enclosed inquiry slip

REVERSING DRUM SWITCH for 2-hp and smaller electric motors

Enclosed in Bakelite housing of bulletin 350 style A reversing drum switch are eight fixed contacts, moving contact assembly, handle-coverplate assembly and mounting screws. Equivalent to a three-pole double-throw switch, it is for across-the-line starting and reversing of alternating and direct current motors rated at 2 hp or less. Contacts are cadmium silver alloy. Switch is suitable for wide variety of mounting arrangements. Made by **Allen-Bradley Co.**, 1320 S. Second St., Milwaukee 4, Wis.

For more details circle NED-8646 on enclosed inquiry slip

LABORATORY HOT PLATES feature graduated heat control



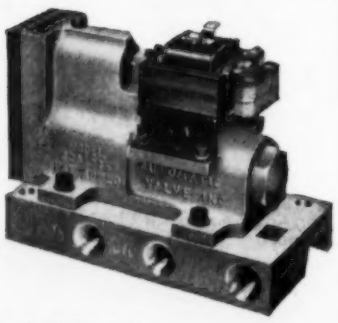
Infinite variability of first half of total wattage of heavy duty laboratory hot plates by Chromatrol makes it possible to maintain desired temperature of liquids or other materials continuously. Models rated between 660 and 2000 w produce any surface temperature up to about 800° F. Plates can also be operated at full capacity when higher surface temperature is preferred to precise control. Operation is on 120 or 240 v ac. Resistor wires are totally enclosed, while baffle plates and plastic feet insure coolness of handling. Made by **Edwin L. Wiegand Co.**, 7509 Thomas Blvd., Pittsburgh 8, Pa.

For more details circle NED-8647 on enclosed inquiry slip

7,632,113 OPERATIONS

Actual performance of a standard 3/8", 4-Way AUTOMATIC solenoid valve before maintenance was required.

RUGGED CONSTRUCTION FOR HEAVY DUTY OPERATION
•
CYCLING TO 600 PER MIN.
•
FOR CONTROL OF COMPRESSED AIR-PRESSURES 20 TO 150 LBS.



Available in standard pipe sizes.

Thousands of AUTOMATIC 3-way and 4-way valves in daily operation. Write for bulletin and prices. Attractive quantity and O.E.M. discounts.

PIONEERS and SPECIALISTS in PILOT OPERATED SOLENOID CONTROLLED VALVES

AUTOMATIC VALVE CO.
37425 GRAND RIVER AVE., FARMINGTON, MICH.

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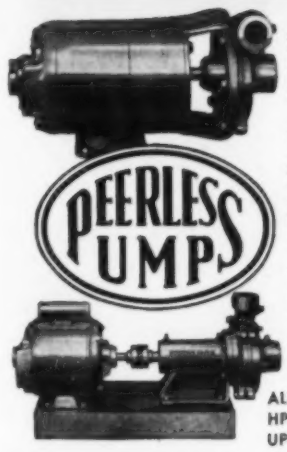
PEERLESS HIGH EFFICIENCY GENERAL PURPOSE FRACTIONAL HP PUMPS

EASIEST TO INSTALL, OPERATE AND MAINTAIN



SIZES: ¼ TO 1½ HP • HEADS UP TO 110 FT. • **CAPACITIES:** UP TO 65 GPM **DRIVES:** CLOSE-COUPLED ELECTRIC OR FLEXIBLE COUPLED ON COMMON BASE

FEATURES: Designed for vertical, horizontal or intermediate angle installation without affecting efficiency. Motors are drip proof, cool running. Drive shaft is stainless steel. Enclosed impeller. Four positions of volute provide flexibility in connecting piping. Equipped with shaft seal; no packing to change. Water deflector shields motor bearings. Highly efficient; extremely rugged and dependable. Available out of stock at Los Angeles or Indianapolis. Fully described in Bulletin B-2300.

ALSO AVAILABLE IN INTEGRAL HP MODELS UP TO 150 HP AND UP TO 5500 GPM

Write for Bulletin B-2300

PEERLESS PUMP DIVISION
FOOD MACHINERY AND CHEMICAL CORPORATION
Factories: Los Angeles, California, and Indianapolis, Indiana.
Offices: New York, Atlanta, Fresno, Los Angeles, Chicago, St. Louis, Phoenix; Dallas, Plainview and Lubbock, Texas; Albuquerque, New Mexico.

For more details circle NED-8649 on enclosed inquiry slip

"ROCKWELL"* ...to be SURE in Hardness Testing

● You know the value of testing. You know the precision of "ROCKWELL" Hardness Testers. But is your present machine exactly suited for today's work? Or is it difficult to decide which model you need for new work in your plant or laboratory? To be sure, check the "ROCKWELL" line.

"ROCKWELL" Hardness Testers. For metals and alloys, hard or soft, flat, round, tubular, or odd shaped. Micrometric precision yet ruggedly built. Convenient controls. Four sizes.

"ROCKWELL" Superficial Hardness Testers. For shallow tests of razor blades, wire, tin plate, nitrided and lightly carburized steel. Accurate for years. Easy to operate. Variety of sizes.

TUKON. For microhardness or micro-indentation hardness testing. Automatic testing cycle. Indentation as shallow as .00005". Three models.

ACCESSORIES. "Brale" diamond penetrator • Test Blocks for checking accuracy • Equitron for positioning test samples • Gooseneck Adapter for testing inner surfaces • Work Supports for rods, tubes, odd shapes.

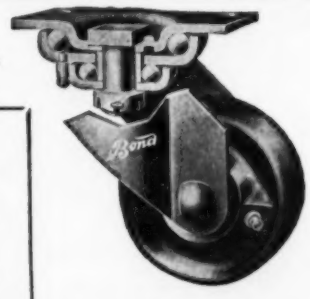
Tell us your problem. Let us make recommendations. Be sure. Buy "ROCKWELL" Hardness Testers.

**Trade Mark Registered*

ACCO **WILSON**
MECHANICAL INSTRUMENT DIVISION
AMERICAN CHAIN & CABLE
230-X Park Avenue, New York 17, N. Y.

For more details circle NED-8650 on enclosed inquiry slip

140-A Series. Equipped with Roller Bearing Semi-Steel Wheels.



for ***heavy loads hard service*** it's Best to Use

Bond built-for-the-job

40-A SERIES STRUCTURAL STEEL CASTERS

1340-A Series. Equipped with Roller Bearing Solid Rubber Wheels.

Depend on Bond 40-A Series Casters when your service needs require the strength and durability of all-steel construction coupled with easy maneuverability.

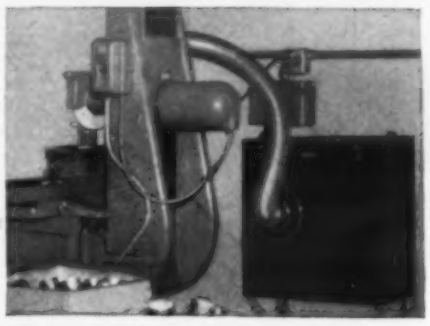
The 40-A Series have double ball races. The upper race absorbs all side shock; the lower race absorbs the vertical load. These casters are pressure lubricated for frictionless operation—stand up best, keep costs way down.

Write today for Bond Catalog K-38. It gives complete information on all Bond Casters.

BOND FOUNDRY & MACHINE CO.
Manheim, Pennsylvania

For more details circle NED-8651 on enclosed inquiry slip

STOP DUSTS



INSTANTLY *with* DUSTKOP

Available from stock of 22 standard models
300 cfm to 10,000 cfm

for: Surface Grinders, Tool and Cutter Grinders; Polishers and Buffers; Abrasive Belts and Discs; Woodworking and Plastic Industry Equipment . . . DUSTKOPS collect almost all kinds of industrial dusts.

Ask for Catalog 605-2. Describe dust problem for recommendation by return mail—no obligation.

AGET-DETROIT CO.
201 Main St. Ann Arbor, Michigan

For more details circle **NED-8652** on enclosed inquiry slip

Rigid Quality Controls GUARANTEE Better Weld Metal

• There's no room for guesswork in manufacturing Stainless Electrodes that will produce consistently high quality welds on every application. That's why the raw materials that go into Arcos Stainless Electrodes must meet rigid specifications . . . why every electrode must pass so many quality tests before it's put to use. It means complete assurance that the weld metal will be physically, chemically and metallurgically right for the job you want to do.

ARCOS CORPORATION
1500 South 50th St., Phila. 43, Pa.

WELD WITH ARCOS
Stainless, Low Hydrogen and Non-Ferrous Electrodes

For more details circle **NED-8653** on enclosed inquiry slip

Simple, Rugged, Low Cost Industrial Cooling

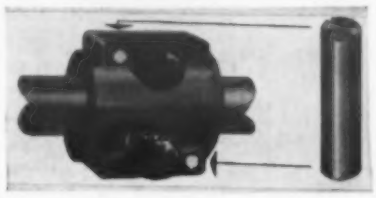
The FLOW COLD UNIT is shipped factory assembled and tested, ready for instant use.
FLOW COLD gives you the *simplest*, most *economical* installation you can make.
Used in hundreds of industrial applications where you save money through temperature control
For the answer to YOUR requirements, address Department FC.

ACME PRODUCTS

ACME INDUSTRIES, INC.
Flow Cold Division
JACKSON, MICHIGAN
CONTINUOUSLY SERVING THE AIR CONDITIONING AND REFRIGERATION INDUSTRY SINCE 1919.

For more details circle **NED-8654** on enclosed inquiry slip

LOCKING DOWEL PINS
retain accurate parts alignment



Made of centerless ground and polished cold drawn steel, Lok Dowels are grooved pins which provide method of retaining accurate alignment between component parts. Used on mechanical devices, machine components, dies, jigs and fixtures, dowels have four parallel grooves impressed along half the length. Resiliency of metal sets up outward radial forces that lock grooved portion of dowel in place. Hard blows or continuous vibration will not allow them to drop out. In disassembly and reassembly, grooved portion stays in place, while ungrooved end of pin is slipped out. Dowels can be made of B-1112, drill rod or stainless steel. Made by **Driv-Lok Pin Co.,** Park & Chauncey Ave., Sycamore, Ill.

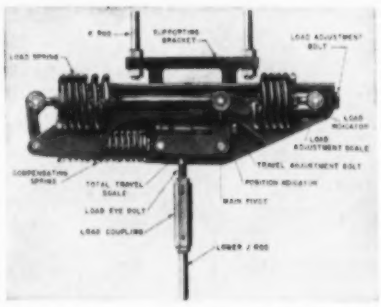
For more details circle **NED-8655** on enclosed inquiry slip

SAWING GUIDE LIGHT
redesigned for greater versatility

Improvements incorporated in guide line light which throws black pencil-like shadow line for straight-line sawing include 1000-w lamp of one-third greater lumen output, facilities for casting up to five shadow lines and baffle arrangement to control width of light pattern. Both lens and transformer are eliminated, and light now plugs into any alternating current circuit. When equipped with tilting device shadow line can be moved in either direction from center. Made by **Carter Products Co.,** 960-A Michigan Trust Bldg., Grand Rapids, Mich.

For more details circle **NED-8656** on enclosed inquiry slip

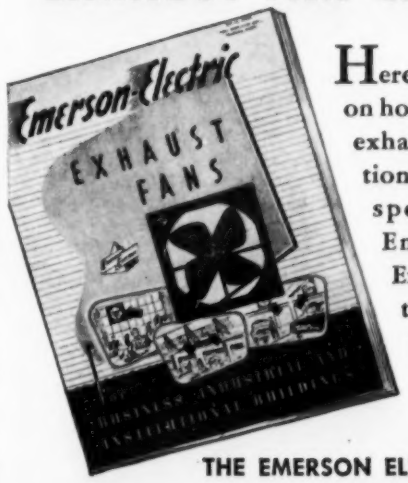
PIPE HANGER
hot and cold pipe given equal lift



Equal lift in all positions of travel of piping system as it expands and contracts is provided by model L constant support pipe hanger. Improved model offers simplified field adjustment. Maximum travel is increased from 4 to 5 in. in medium chassis and from 8 to 10 in. in large chassis. Total load and clearance range is handled by three sizes, each with overlapping ranges. Single nut corrects discrepancies between calculated hanger loads and actual loads at time of installation. Made by **Grinnell Co.,** 277 W. Exchange St., Providence 1, R. I.

For more details circle **NED-8657** on enclosed inquiry slip

FREE
EXHAUST FAN CATALOG



Here is valuable data on how to plan effective exhaust fan installations, plus complete specifications of Emerson-Electric Exhaust Fans. Send today for Bulletin No. 262.

THE EMERSON ELECTRIC MFG. CO.
St. Louis 21, Mo.

EMERSON ELECTRIC
FANS • MOTORS APPLIANCES

For more details circle **NED-8658** on enclosed inquiry slip

L-S "JACKSTACKER" TIERING TRUCK
The **ONE** *and* **ONLY**

1000 LB. CAPACITY
TIERING TRUCK *with these* **OUTSTANDING** *Fork Truck* **FEATURES**

TELESCOPIC and TILTING
130" HIGH LIFT 83" Collapsed Height
44" TURNING RADIUS
Extra Narrow Aisles
SHORTEST COUNTER BALANCED TRUCK
Less than 4 ft. long.
PRECISION DESIGN and MANUFACTURE
In our own shops. High pressure hydraulic system permits extra short 46½" length.
NO GREASE POINTS
The ONLY Truck with "ALL CONTROLS IN HANDLE HEAD"
2 speeds forward. 2 reverse. Electric brake. Tilt out and in. Lifting. Lowering. Horn. Lock . . . Operates with handle VERTICAL (saves extra space) and in any other position.

For Distribution, Warehousing Receiving and Shipping
WIDELY USED with chisel forks WITHOUT PALLETS
Write for Bulletin 24

LEWIS-SHEPARD
LEWIS-SHEPARD PRODUCTS INC. 302 WALNUT ST., WATERTOWN 72, MASS.
MIDWEST PLANT: Crawfordsville, Ind. Sales and Service In Principal Cities

For more details circle **NED-8659** on enclosed inquiry slip

OHMITE
HIGH-CURRENT
TAP SWITCHES

COMPACT... DEPENDABLE

The Most Complete Line of Its Type on the Market

Equipment manufacturers everywhere know that when they require high-current, non-shorting rotary tap switches, they can usually find just the right type and size in the Ohmite line. Ohmite tap switches are particularly designed for a-c use. They are extremely compact, providing up to 12 taps. Capacities range from 10 to 100 amperes a.c. In addition to the high-amperage, multi-point selector illustrated, Ohmite tap switches are available in open-type models, for both shorting and non-shorting applications. Ohmite is also prepared to supply open-type tap switches with special features—such as special angles between taps, and with up to 25 contact points. All Ohmite switches can be mounted in tandem for multi-pole operation.

5 SIZES
10 amp—150 v
15 amp—150 v
25 amp—300* v
50 amp—300* v
100 amp—300 v
*150 volts between taps

OHMITE MANUFACTURING CO.
4843 Flournoy St., Chicago 44, Ill.
Write on company letterhead for Engineering Catalog No. 40.

Be Right with **OHMITE**®

RHEOSTATS • RESISTORS • TAP SWITCHES

For more details circle **NED-8660** on enclosed inquiry slip

Now

PRODUCE SPECIAL TOOLS
SPIRAL OR STRAIGHT FLUTES
from other tools or from solid steel
in your shop

When the need comes up for a special spiral-fluted cutting tool in your shop, you can make it quickly and accurately if you have the Detroit Reamer Spiral Attachment. Tools can be produced complete with any number of flutes up to 24 and any length . . . they can be produced from other tools or from a solid piece of steel. This attachment is also valuable for grinding relief on all cutting tools, whether straight-fluted, spiral-fluted or straight or tapered.

The Spiral Attachment fits on any standard cylindrical or cutter grinder and is easily set up for any job. All tools produced from the same set-up are identical and set-ups can be duplicated again and again by merely resetting the scales provided on the attachment.

Think of the savings in time and money when you can produce your own "specials" in any quantity . . . easily, quickly, inexpensively.

Send for Bulletin

DETROIT REAMER & TOOL CO.
Mfrs. of Special High Speed Cutting Tools
2832 East 7 Mile Rd. Detroit 34, Michigan

For more details circle NED-8661 on enclosed inquiry slip

TRU-LAY PUSH-PULL CONTROLS

This
NEW 12-page Booklet

SHOWS YOU HOW TO CONTROL CONTINUOUS OR INTERMITTENT TRANSMISSION OF RECIPROCAL MOTION

Tru-Lay Push-Pull is solid as a rod—yet *flexible* as a wire rope. It operates while flexing . . . over short or long distances . . . with few or many bends. Capacity up to 1000 pounds input.

Write our Detroit office today for your copy of **DH-287**

601 Stephenson Bldg., Detroit 2 • 2475 Porter St., Los Angeles 21
Bridgeport, Connecticut

ACCO
AUTOMOTIVE AND AIRCRAFT DIVISION
AMERICAN CHAIN & CABLE
In Business for Your Safety

For more details circle NED-8662 on enclosed inquiry slip

DRILL JIG
for small parts, medium size runs

Featuring accurate alignment and touch-release locking, Mijit B-6 single post drill jig is for drilling small parts and for short and medium size runs. Cam action of jig provides infinite number of locking positions, reducing loading and unloading time. Base, top plate and right angle of back to base are accurately machined. Hardened and ground post and alignment dowel maintains alignment between bushing plate and base. Post serves as raising and lowering rack with 1-in. stroke. Made by **Esco Engineering Corp.,** 1940 E. Woodbridge, Detroit 7, Mich.

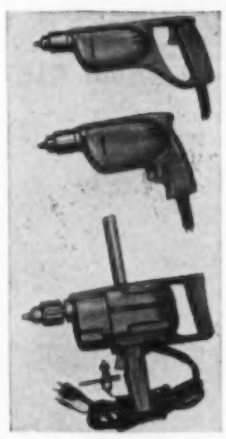
For more details circle NED-8663 on enclosed inquiry slip

AIR VIBRATOR
used to unload bulk materials

Mounted in horizontal position on side of 20-ton capacity dump truck, this type LSRR air vibrator speeds unloading of bulk cement. Used only intermittently, vibrator keeps cement moving for unloading in 30 minutes. Device is equipped with cast steel male bracket which fits into female bracket on truck. Use can be for other materials which pack down in transit and on various types of handling equipment. Made by **Cleveland Vibrator Co.,** 2744 Clinton Ave., Cleveland 13, O.

For more details circle NED-8664 on enclosed inquiry slip

PORTABLE ELECTRIC DRILLS
cover 400 to 500 rpm range



Line of Pet Superduty portable electric drills covers speed and torque requirements in production, construction and maintenance as well as government specifications for ¼, ⅜ and ½-in. capacity drilling. Features include compact design, aluminum die cast body, dynamically balanced armature, precision-cut alloy steel gears and forced ventilation for cool operation. Drills of ½-in. capacity are offered in standard, heavy and extra heavy duty models with choice of eight speeds from 500 to 5000 rpm, no load, with pistol or saw type grip. Heavy and extra heavy duty models with no load speeds from 400 to 1000 rpm are available in the ⅜-in. capacity drill, while the ½-in. drill is made in standard, heavy and extra heavy duty models with range of 500 to 600 rpm. Made by **Portable Electric Tools, Inc.,** 323 W. 83rd St., Chicago 20, Ill.

For more details circle NED-8665 on enclosed inquiry slip

ONLY SAFETY BELT HOOKS

have the patented binder bars—are rigidly mounted in double steel strips that hold hooks permanently in alignment, assuring uniform tension across the belt, maximum traction and long belt life. Moreover, these bars protect belts—lap over belt ends, prevent fraying, prevent hooks from pulling out. This better belt lacing comes in 5 sizes. It can be applied with any standard lacer or lacing machine, or, can be applied with an ordinary hammer by using the inexpensive Safety Tu-way Lacer.

Write for Circular

Safety BELT-LACER CO.
5378 N. Menard Ave.
Chicago 30, U. S. A.

For more details circle NED-8666 on enclosed inquiry slip

Made to order for heavy packages...

Conveying heavy packages between manufacturing departments and to and from the warehouse can be mighty expensive until you put them on conveyors. If you have some heavy packages to move — let's talk it over—

ALVEY *Engineered...* PACKAGE CONVEYING

ALVEY CONVEYOR MFG. CO.
P. O. BOX 3031
St. Louis 24, Missouri Sales Offices in Principal Cities

For more details circle NED-8667 on enclosed inquiry slip

ALLIS-CHALMERS COMBINATION STARTERS

SAVE SPACE... SPEED INSTALLATION!

When you need both a magnetic starter and a safety switch for a motor, select an Allis-Chalmers circuit breaker-type combination starter. A neat installation can be made quickly . . . starter and switch are factory wired in a single enclosure to save you time and space.

You get a starter that has silver-to-silver double break contacts, non-carbonizing arc chambers and easily accessible renewable parts. The circuit breaker gives short circuit protection . . . serves as a disconnect switch.

These combination starters are available in sizes 0 through 5 for motors from fractional to 200 hp, 110-550 v. With fusible or non-fusible disconnecting switches they are also available up through size 3.

There is an Allis-Chalmers starter for every motor need. Bulletin 14B7132 describes manual, magnetic, combination, and reversing starters for 110-550 volt motors. Contact your nearby A-C representative, or write Allis-Chalmers, Milwaukee 1, Wisconsin.
A-3498

ALLIS-CHALMERS

For more details circle NED-8668 on enclosed inquiry slip

ANOTHER W&T PRECISION INSTRUMENT....

The W&T Precision Low Pressure Gauge

The W&T Precision Low Pressure Gauge has proved to be the answer to the problem of measuring low pressure accurately by successful use in such fields as aircraft flight testing, automotive research work, and engine and ventilation studies. Built with custom care from its beryllium copper capsule to its individually calibrated dial, the W&T Low Pressure Gauge is a precision instrument of the highest grade.

Here are some of its outstanding features:
- Sensitive to 1 part in 500
- Available in ranges from 0 - 10" of water to 0 - 400" of water
- Measures differential pressure
- Unaffected by gravity or acceleration
- Equipped with expanded scale if desired

Write now and tell us your low pressure measuring requirements. We'll be glad to help — no obligation, of course.

WALLACE & TIERNAN PRODUCTS, INC.
ELECTRICAL MECHANISMS AND PRECISION INSTRUMENTS
Belleville 9, New Jersey • Represented in Principal Cities

For more details circle NED-8669 on enclosed inquiry slip

The CHEAPEST Way

TO KEEP COSTLY MOTOR BURNOUTS DOWN...

Specify and Use Motors with Built-in KLIXON Protectors

Motor burnouts are costly. They result in motor repairs or replacements, high maintenance costs and production slowdowns. Klixon Protected motors are your solution to eliminating this problem.

Built-in as an inherent part by the motor manufacturer, the Klixon Protector saves money and reduces idle machine time by preventing the motor from burning out. This means that you have less equipment shutdowns, less motor repairs and replacements . . . all adding up to substantial savings.

However, remember that all motors do not come protected . . . and the only way to be sure that your motors are equipped with Klixon Protectors is to specify on your motor purchase order "motors with built-in Klixon Protectors." This will guarantee that the motor you buy and receive will be positively protected against motor burnouts.

As a user of electric motors, you can keep production moving, cut down motor upkeep to a minimum by ordering and using motors with built-in Klixon Protectors. The additional cost is low . . . pays dividends day in, day out.

KLIXON SPENCER THERMOSTAT
Division of Metals & Controls Corp.
1911 Forest St., Attleboro, Mass.

For more details circle NED-8670 on enclosed inquiry slip

SPRACO NOZZLES

Write for NOZZLE CATALOG to
SPRAY ENGINEERING CO.
106 CENTRAL STREET • SOMERVILLE 45, MASS.

For more details circle NED-8671 on enclosed inquiry slip

M&M reduction machines

M & M Reduction Machines are rapidly gaining favor in industry for converting waste to uniform size for easy handling and in many cases into valuable by-products. Cut your disposal costs with an M & M Reduction Machine. Send us your problems.

MITTS & MERRILL
1000 South Water • SAGINAW, MICHIGAN

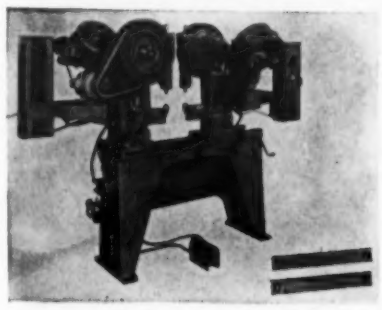
For more details circle NED-8672 on enclosed inquiry slip

BAGGAGE TRUCK
aluminum unit needs no maintenance

Deck of model 130 lightweight aluminum Flexi-Truck is at convenient handling height. Truck is 4 x 8 ft and weighs 450 lb. Gates on each side swing upwards for easy loading and unloading. Aluminum wheels and casters and sealed Timken bearings are incorporated. Tires are neoprene and wheels are equipped with thread guards. Truck can be towed at speeds of 25 to 30 mph over rough terrain, with all four wheels remaining in contact with ground. Made by **Tobey Mfg. Corp.**, 1222 El Segundo Blvd., El Segundo, Calif.

For more details circle NED-8673 on enclosed inquiry slip

TWIN UNIT NUT RUNNER
sets two nuts at each operation



Tooled to feed and set two ⅜ x ½ x 3/16-in. Fabri-Steel nuts at each operation, double Clinchor units are tripped by single foot-operated valve. Anvil position of left-hand runner is adjustable in front-to-back direction as well as in height. Right-hand unit anvil position is adjustable in left-to-right direction. Samples of work, front and back view, are shown in lower right corner of illustration. Made by **Tomkins-Johnson Co.**, 609 N. Mechanic St., Jackson, Mich.

For more details circle NED-8674 on enclosed inquiry slip

DIESEL-ELECTRIC PLANT
generates 115-v, 60 cycle current

Powered by Onan air-cooled full diesel engine, this 3000-w model 3DSP-1E electric plant generates 115-v, 60-cycle, single phase current. Other models available include 230-v single phase current, 115/230-v single phase current and 32-v battery charging unit. Anyone can operate units which feature push switch control for electric cranking, manual compression release and electrically heated glow-plug for cold weather starting. Four-cycle engine consumes 0.115-gal per kilowatt hour at full rated load. Made by **D. W. Onan & Sons Inc.**, 2516 University Ave. S. E., Minneapolis 14, Minn.

For more details circle NED-8675 on enclosed inquiry slip

Quick, Easy, Low Cost Way to

STOP LEAKS

. . Seal Out Dampness in Basement Walls!

Leaks in concrete walls, masonry, cinder block, etc., can be stopped quickly with FLEXTITE. Actually seals against water pressure. Efficient as a trowel coat for sealing off water and dampness. Transforms leaky basement walls into dry surfaces. (Minimum quantity 6 gallons)

USED IN
- ELEVATOR PITS
- TUNNELS, DRAINS
- WATER TANKS
- RETAINING WALLS

MAIL COUPON FOR TRIAL OFFER

FLEXTITE

FLEXROCK COMPANY *Offices in Principal Cities*
3603-F Filbert St., Philadelphia 4, Pa.
Please send me complete FLEXTITE information and details of TRIAL ORDER PLAN — no obligation.
Name .....
Company .....
Address .....

For more details circle NED-8676 on enclosed inquiry slip

Everybody
DOES A BETTER JOB WITH
CHAMPION *Lamps*
—FOR CHAMPION MEANS THE BEST IN LAMPS!

CHAMPION LAMP WORKS
Lynn, Massachusetts
A DIVISION OF CONSOLIDATED ELECTRIC LAMP CO.

For more details circle NED-8677 on enclosed inquiry slip

GET big truck advantages at small truck cost with YALE WORKSAVERS

SAVE
TIME AND SPACE
Move giant loads up to 300 feet per minute—with full automatic speed control. Utilize *all* storage and production areas.

SAVE
MUSCLE POWER
Transport and lift capacity loads with a smooth flow of power that's easy on the operator, easy on the load.

SAVE
HANDLING COSTS
Mechanize handling on low-load floors; in freight elevator operations; and in other areas where weight or space rule out big trucks.

YALE WORKSAVER Electric Hydraulic Lift Trucks are built for loads up to 3,000 lbs., and are ideally designed to accommodate skids or pallets. Their wide acceptance throughout industry is based on the YALE reputation for top performance in electric trucks of *every* kind.

GET AN EYE-OPENING DEMONSTRATION RIGHT IN YOUR OWN PLANT OR WAREHOUSE

Your YALE Representative will demonstrate the cost-cutting advantages of the rugged WORKSAVER line to you. All you have to do is name the time and place. Naturally, there is no obligation.

Be sure to ask about the famous WORKSAVER "package"—*truck, battery, battery charger.* The YALE Selenium Charger saves time by charging WORKSAVERS right on the job.

Choose from 5 Sturdy Worksaver Models

YALE & TOWNE

The Yale & Towne Manufacturing Co., Dept. 3711
Roosevelt Boulevard & Haldeman Ave., Philadelphia 15, Pa.
Cutting costs with YALE WORKSAVERS interests me, too.
☐ Please have your local Representative call on me.
☐ Please send me a free copy of the new WORKSAVER Catalog.
Name.....Title.....
Company.....
Street.....City.....State.....
In Canada write: The Yale & Towne Manufacturing Co., St. Catharines, Ont.

YALE is a registered trade mark of The Yale & Towne Manufacturing Co.

YALE GAS AND ELECTRIC INDUSTRIAL TRUCKS • YALE HAND TRUCKS • YALE HAND AND ELECTRIC HOISTS

For more details circle NED-8678 on enclosed inquiry slip

SAVE Maintenance AND Towel Costs WITH

Sani-Dri
ELECTRIC
Hand or Hair Dryers

Save valuable maintenance time and eliminate continuing towel expense. New, improved features make Sani-Dri faster drying . . . provide quick, automatic hand or hair drying service 24 hours a day year after year! Sani-Dri is a permanent solution to washroom sanitation and drying problems—and SAVES UP to 85% of WASHROOM COSTS!

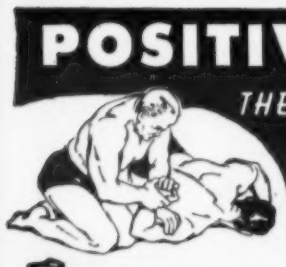
All Sani-Dri Electric Dryers are GUARANTEED, and have carried the Underwriter's Seal of Approval for over 18 years!

SEND FOR NEW BROCHURE showing all models and installation pictures.

Distributors in Principal Cities
THE CHICAGO HARDWARE FOUNDRY CO.
"Dependable Since 1897"
19111 Commonwealth Ave. • North Chicago, Ill.

For more details circle NED-8679 on enclosed inquiry slip

POSITIVE GRIPS



THE "HAMMER-LOCK" and Electroline FITTINGS

The "Hammer-Lock" has long been a favorite grip of wrestlers. But just as popular, in Industry, is the Electroline Fitting . . . these safe, economical, permanent wire-rope connectors may be installed by unskilled labor in a matter of minutes with ordinary mechanic's tools.

Electroline Fittings slash re-roping costs—and prolong wire-rope life by damping vibration stresses and overcoming rope fatigue at entrance to the fitting. Send for catalog describing "positive-grip" Electroline Fittings!

Electroline Company
4121 SOUTH LA SALLE STREET
CHICAGO 9, ILLINOIS
IN CANADA: POWERLITE DEVICES, LTD., TORONTO

For more details circle NED-8680 on enclosed inquiry slip

MOULTING
Faultless ENGINEERED TRUCK CASTERS
CUT HANDLING COSTS

NEW! DRAWN STEEL WHEELS FOR LONGER WEAR

Faultless Casters equipped with the new Drawn Steel Wheels provide (1) *longer life,* (2) *greater efficiency,* (3) *at minimum maintenance* and, thus, (4) *lower operating cost per mile.*

Faultless Steel Wheel Casters help industry reduce overhead by maintaining fast, fluid production lines. These precision-made wheels are machined to tolerances typical of fine tools and like any quality equipment, are the best investment for long uninterrupted service. Write for Bulletin No. NE-4.

FAULTLESS CASTER CORPORATION
Dept. NE-9, Evansville 7, Indiana
Branches in Principal Cities—Canada Factory: Stratford, Ont.

For more details circle NED-8681 on enclosed inquiry slip

CONCAVE ROLLER CONVEYOR designed for cylindrical objects

Shells and other cylindrical objects can be handled by this concave roller conveyor which keeps them in center of conveyor line. As guard rail is not necessary, objects can be placed on or removed from conveyor with minimum of lifting. Made of No. 10 gage steel tubing, rollers have 7/16-in. shaft for ordinary work or 11/16-in. shaft for heavy duty work. Either shaft can be furnished with plain, dust-tight or grease-seal ball bearings. Rollers are available with rubber coverings. Straight and curved conveyor sections are made by **Alvey-Ferguson Co.**, Dept. NE, 75 Disney St., Cincinnati 9, O.

For more details circle NED-8682 on enclosed inquiry slip

MOISTURE INDICATOR can be used on bulk materials

Moisture content of flour, grain, sugar, tobacco, foundry sand and other products is determined quickly and accurately with this No. 26675 Cenco moisture balance. Readings are direct in percentage of moisture content, and scale is graduated from 0 to 100 per cent in increments of 0.2-per cent. Moisture in sample is evaporated by infrared radiation. Made by **Central Scientific Co.**, 1702 Irving Park Rd., Chicago 13, Ill.

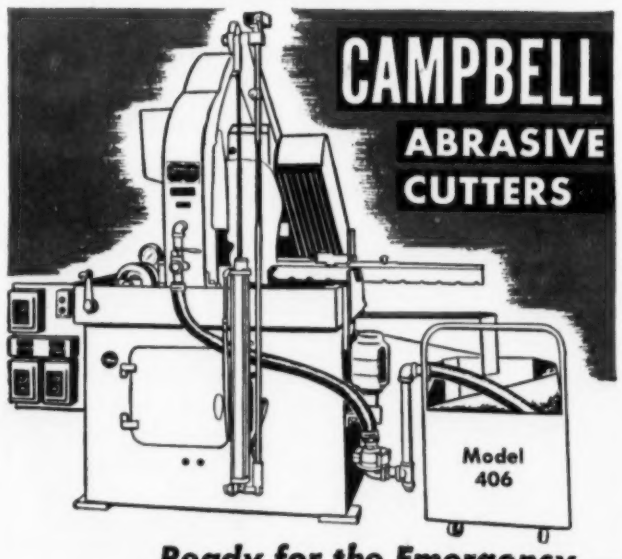
For more details circle NED-8683 on enclosed inquiry slip

AUTOMATIC INDUSTRIAL DOORS packaged for ease of installation

Installed by any maintenance crew without alteration of doors or doorways, Prest-O-Matic industrial doors are shipped as complete package. Doors are available in foldback or sliding types and can be equipped with approach controls engineered for specific application. Full width of doorway is usable for passage, and doors open or close automatically in 3½ seconds. Other features include ball bearing hinges and life-time greased bearings throughout. Made by **Clark Door Co.**, 511 Hunterdon St., Newark 8, N. J.

For more details circle NED-8684 on enclosed inquiry slip

CAMPBELL ABRASIVE CUTTERS



Ready for the Emergency

• A complete line for cutting all metals—ferrous or non-ferrous—hard or soft. Re-engineered for higher production performance and lower over-all cost. Many automatic features. Cutting disc enclosed in steel guard. The safest abrasive cut-off machine made.

Write for "Campbell Explains Abrasive Cutting"

ACCO *Tell us your problem— we'll make recommendations*

CAMPBELL MACHINE DIVISION
AMERICAN CHAIN & CABLE
941 Connecticut Ave., Bridgeport, Conn.

For more details circle NED-8685 on enclosed inquiry slip

PUTS OUT FIRES FASTER with ORDINARY WATER

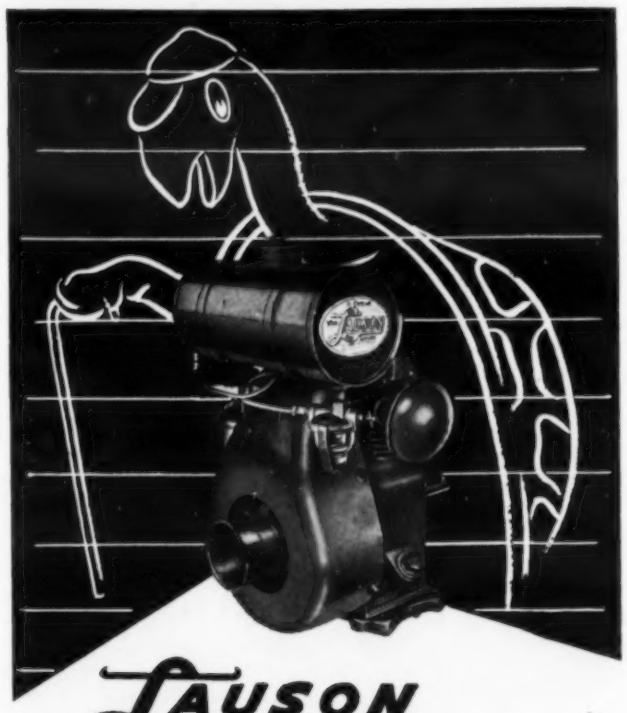
Rockwood triple-action SG-48 WaterFOG Nozzle a truly all-purpose nozzle that extinguishes and controls fires in flammable liquids and ordinary combustibles with plain water. Protects operator from fumes and heat. Discharges *high velocity.* WaterFOG, straight stream and *low velocity* WaterFOG. Available for service on fire hose lines in ¾"—1"—1½" and 2½" sizes. Approved by Underwriters' Laboratories, Inc., and Factory Mutual Laboratories.

Write for complete information and prices on Rockwood's growing family of portable fire fighting products.

ROCKWOOD SPRINKLER COMPANY
44 HARLOW STREET WORCESTER 5, MASS.

Portable Fire Protection Division . . .

For more details circle NED-8686 on enclosed inquiry slip



LAUSON ENGINES ARE BUILT TO last!

Extra attention is given to the materials and engineering that go into every Lauson engine — refinements such as automotive-type pistons, simultaneous cooling of both valves, safe, sure fly-ball governors, and selected long-life bearings . . . refinements that add up to . . . smoother running, trouble-free operation, and more hours of power! The most surprising feature of all is that Lauson engines cost no more than ordinary engines!

THE oldest NAME IN PORTABLE ENGINES!

Over 50 years of experience go into every Lauson engine . . . a priceless tradition of know-how and engineering excellence unequaled in the field! . . . another reason why Lauson is the greatest name in portable engines!

OUTBOARD MOTORS
LAUSON
PORTABLE ENGINES

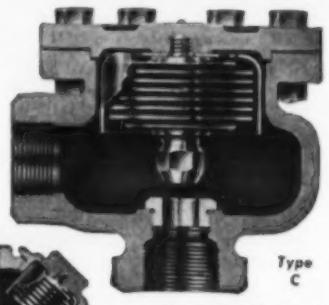
THE LAUSON COMPANY
New Holstein, Wis., U. S. A., Div. of Hart Carter Co.
In Canada: Hart-Emerson Co. Ltd., Winnipeg

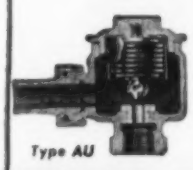
For more details circle NED-8687 on enclosed inquiry slip

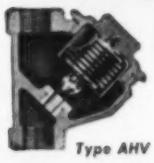
CUT DRYING CYCLE from 24 to 16 HOURS

with Nicholson Steam Traps

A large processer, by substituting Nicholson thermostatic traps for mechanical units, cut important drying operations from 24 to 16 hours, and refining cycles from 5 to 4 hours. They credit the higher and more even temperatures Nicholson traps effect. 5 types for every purpose; sizes ¼" to 2"; press. to 225 lbs. See why leading plants are increasingly standardizing on Nicholson traps to promote economical steam use.







BULLETIN 450

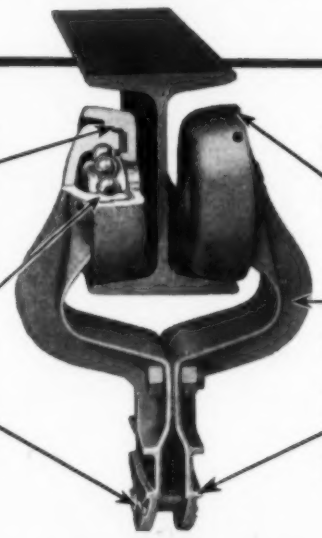
162 Oregon St.
Wilkes-Barre, Pa.

W. H. NICHOLSON & CO.

TRAPS · VALVES · FLOATS

For more details circle NED-8688 on enclosed inquiry slip

Your conveyor dollars go farther with LINK-BELT trolleys



LINK-BELT

LINK-BELT COMPANY: Chicago 8, Indianapolis 6, Philadelphia 40, Atlanta, Houston 1, Minneapolis 5, San Francisco 24, Los Angeles 33, Seattle 4, Toronto 8. 12,385

Write for Folder 2241-B.

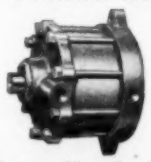
For more details circle NED-8689 on enclosed inquiry slip

Tell Us Your Production Problems . . . We'll Help You Solve Them

"LOGAN" Rotating and Nonrotating AIR CYLINDERS

Fast-Acting, Positive Controlled Power.. At LOW COST

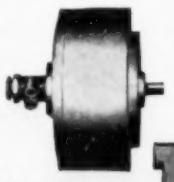
NONROTATING—
7 STANDARD MOUNTING TYPES



Standard sizes from 1½" to 12" bore; maximum stroke, 18 feet. Special models to meet your requirements.

Logan Features — Larger Ports . . . More Sturdy Construction . . . Maximum Power Without Leakage . . . Permanent Seal Around Piston Rod . . . Standard Models Available With or Without Cushioning.

ROTATING—



Two Standard Styles — Model R with cast iron body; Model K with lightweight aluminum body.

Bore diameter 1½" to 20"; piston stroke 1" to 2"; longer strokes available as special. American Standard adaptations; simple, efficient design to assure positive, rapid, economical operation.

Logan Manufactures 6,975 Standard Cataloged Items

Free Catalog On Request

AIR CONTROL VALVES — CATALOG 100-4
AIR CHUCKS — CATALOG 70-1
AIR CYLINDERS — CATALOG 100-1
AIR and HYDRAULIC PRESSES — CATALOG 200-2; ALSO 80-2
COLLET GRIP TUBE FITTINGS — CATALOG 44
HYDRAULIC CONTROL VALVES — CATALOG 200-4
HYDRAULIC CYLINDERS — CATALOG 200-2; ALSO 80-2
HYDRAULIC POWER UNITS — CATALOG 200-1
SURE-FLOW COOLANT PUMPS — CATALOG 62

Let Logan Engineers help you design your Air and Hydraulic Circuits.

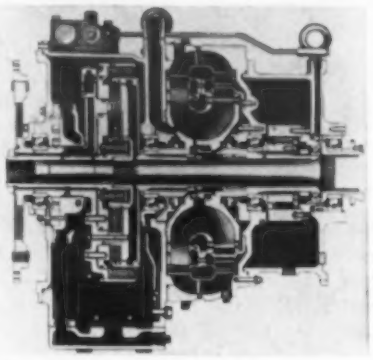
Logan SAVES TIME EFFORT MOTION
Air and Hydraulic Equipment

LOGANSPORT MACHINE CO. INC. 808 Center Ave. Logansport, Ind.

FLUID POWER SPECIALISTS SINCE 1916

For more details circle NED-8690 on enclosed inquiry slip

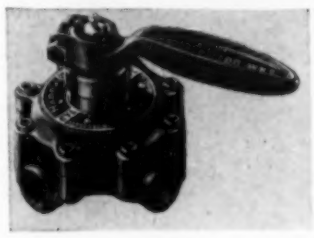
TORQUE CONVERTER TRANSMISSION minimizes gear shifting and braking



Eliminating 99 per cent of forward gear shifting on grades up to 13 per cent, model DF direct-drive hydraulic torque converter can also perform 90 per cent of braking when combined with engine drag. Used with closely spaced transmission, unit is for trucks hauling loads of up to 30 tons. Shock loads on many truck parts are considerably reduced through use of transmission. Brake is designed to exert braking effort in excess of engine rated horsepower. Made by **Twin Disc Clutch Co.**, Dept. N, Racine, Wis.

For more details circle NED-8691 on enclosed inquiry slip

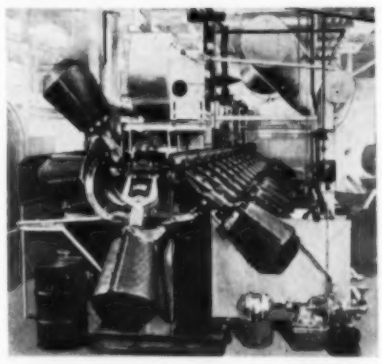
CONTROL VALVES have long operating life



Recent tests of Unitite valves (*See NED, March '48*) indicate that operating life of these controls is in excess of 10 to 15 million cycles. These hand operated controls are offered in standard, column and manifold mounting styles for three or four-way operation by air, oil or water up to 250 psi in ⅜, ½ and ¾-in. sizes; to 150 psi for 1-in. size and up to 100 psi for 1¼-in. size. Made by **Hanna Engineering Works**, 1766 Elston Ave., Chicago 22, Ill.

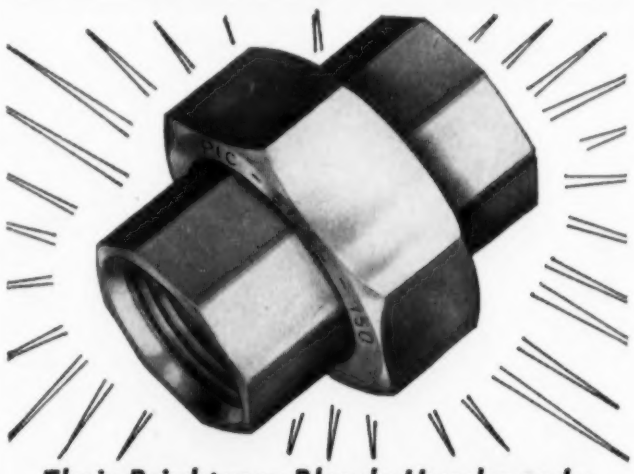
For more details circle NED-8692 on enclosed inquiry slip

BARREL PLATING MACHINE large model handles bulky parts



Larger version of model C barrel plating and processing machine, called model E, facilitates plating greater volume of bulky metal parts than can be handled by smaller machine. Large barrels revolve continuously through entire cleaning, plating, rinsing and drying cycle. Operation is entirely automatic. Only manual process is loading of barrels at start of plating cycle, however, company offers mechanical loader as auxiliary equipment. Unit can be installed as integral part of materials handling system. Since machine is not standard size, models can be ordered in any size within practical economic limits. Made by **Frederic B. Stevens, Inc.**, 18001 Eighteenth St., Detroit 16, Mich.

For more details circle NED-8693 on enclosed inquiry slip



Their Brightness Blends Handsomely with Original Equipment!

PIC STEEL UNIONS

This smart-appearing 150 lb. steel union looks as if it belonged on original equipment . . . and it *does!* Not only bright and attractive — it's unusually strong. Ends are of heavy steel pipe coupling stock — uniformly flat sided for speedy installation in tight corners or elsewhere with open end wrenches. Special wedge type bronze seat for tight closure. 100% zinc plating — even on threads — gives maximum rust protection. You'll be pleasantly surprised by the cost — less than a galvanized — no more than a black malleable union.

Write for FREE SAMPLES

DART UNION COMPANY

132 Thurbers Avenue, Providence 5, R. I.

For more details circle NED-8694 on enclosed inquiry slip

This Midget does a GIANT'S Work

ECO GEARLESS PUMPS

IT HAS NO EQUAL For Moving Clear & Viscous Fluids at Lowest Cost

• VERSATILE • MULTI-PURPOSE • TROUBLE-FREE

Compact, yes! But so powerful, this pump is world-famous for smooth, quiet, efficient performance. Preferred for original equipment as well as replacement wherever Chemicals, Coolants, Beverages, Brine, Water, Oils, Fuels, etc. must be moved economically. Pumps in either direction. Requires no lubrication.

MATERIALS OF CONSTRUCTION
Pump Housings: Naval Bronze Forgings or #316 Stainless Steel Precision Castings.
Capacities: 1/10 to 20.7 G.P.M. Pressures: Up to 150 PSI.

SEND FOR ECO PUMP BULLETIN NE

Speeds: 300 to 3400 R.P.M. Suction Lift: 28 Feet.
Pumps Available with Two or Four Ports. Sizes ¼, ⅜, ½, ¾.

Manufacturers of the only positive displacement Mini Pump for Industrial, Process, Farm, Home and Marine Use.

ECO ENGINEERING CO.
12 NEW YORK AVENUE NEWARK 1, N. J.

For more details circle NED-8695 on enclosed inquiry slip

Now! The OZAMATIC... Desk-Top Machine

MAKES DIRECT COPIES AT NEW LOW COST!

Makes a single copy in seconds . . . up to 1000 copies an hour

Ozalid's new Ozamatic produces clear, exact copies of anything drawn, typed, printed or written . . . any width up to 16", any length . . . on a variety of papers, cloths or foils.

It copies by light transmission at high speed—direct from any translucent original . . . at about 1½¢ per letter-size copy.

Ozamatic Saves Money . . . Eliminates double its cost, in waste time alone, in a single year. No retyping, no stencils, no negatives, no make-ready, no proofreading, because Ozamatic copies direct.

Large Volume From a Small Machine. Fits on a small desk, as shown above. Anyone can learn to operate the Ozamatic in five minutes. For opaque originals, all that is required is an inexpensive, fast, intermediary process.

WRITE FOR FREE Illustrated Literature. Tells you in full detail how Ozamatic can help boost your production . . . cut paperwork costs. Learn how easily Ozalid fits into your accounting, purchasing, shipping, order handling and receiving systems. In any business, any department!

Or call your local Ozalid distributor listed in the classified telephone book.

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OZALID

Johnson City, N. Y. • A Division of General Aniline & Film Corp.

"From Research to Reality"

Ozalid in Canada—Hughes Owens Co. Ltd., Montreal

For more details circle NED-8696 on enclosed inquiry slip

QUALITY AT A MASS PRODUCTION PRICE

Type H

If your processing is done at steam pressures 0-25 psi, you can use this superior SARCO RADIATOR TRAP at a very substantial saving in first cost.

Many thousands are used every year for space heating in all types of buildings. They are produced by the latest automatic machinery, resulting in highest quality at a very low price.

SARCO thermostatic steam traps are unequalled for the rapid removal of air and condensate from steam coils or jackets, and their supply lines.

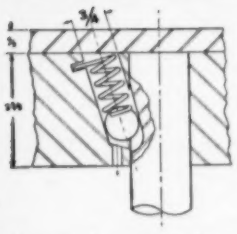
0-25 PSI—Type H, Bulletin 155
0-65 PSI—Type S-65 } Bulletin
0-100 PSI—Type N-100 } 195

SARCO COMPANY, INC.
EMPIRE STATE BUILDING, NEW YORK 1, N. Y.
Represented in Principal Cities
SARCO CANADA LTD., TORONTO 5, ONTARIO

510

For more details circle NED-8697 on enclosed inquiry slip

—Heavy Piercing Problems with New R-B Extra Heavy Duty Retainer



Here's a new combination of an extra heavy duty retainer and new punch design that brings economies of R-B interchangeability to hole-making formerly done by drills or without interchangeable punches.

For instance, in the application shown above, this heavy duty design enabled interchangeable punches to pierce 5/8" thick SAE 10-45 steel and eliminated costly drilling. The ball lock gives positive alignment and sure stripping without the use of other keying devices.

If you have thought your piercing jobs too tough for interchangeable punches, then it will pay you . . . in design, construction and operation savings . . . to investigate this new R-B extra heavy duty retainer. **Allied Products Corporation, Richard Brothers Division.**

Get the Whole Story

ALLIED PRODUCTS CORPORATION
RICHARD BROTHERS DIVISION
Dept. 59 • 12629 Burt Road • Detroit 23, Mich.
Please send me your 52-page free catalog.

NAME _____ TITLE _____
COMPANY _____
ADDRESS _____
CITY _____ ZONE _____ STATE _____

Also Produced in Allied's Four Plants . . .
HARDENED AND PRECISION GROUND PARTS • STANDARD CAP SCREWS • SPECIAL COLD FORGED PARTS • SHEET METAL DIES • ALLITE DIES CAST OF ZINC ALLOY • JIGS • FIXTURES

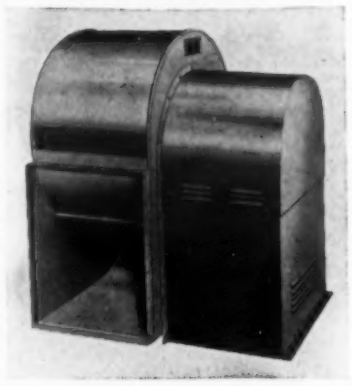
For more details circle NED-8698 on enclosed inquiry slip

HOSE & DUCT CLAMP
facilitates quick assembly, removal

Designed for convenient handling of removable equipment, series 21 quick coupling clamp assures efficient seal for all types of hose and duct connections. Stainless steel construction affords high temperature and corrosion resistance, and quickly-assembled hinged latch makes clamp suitable for high pressure uses. Unit has high strength-to-weight ratio. Made by **Specialty Products Co.,** Dept. A, 1965 E. 66th St., Cleveland 3, O.

For more details circle NED-8699 on enclosed inquiry slip

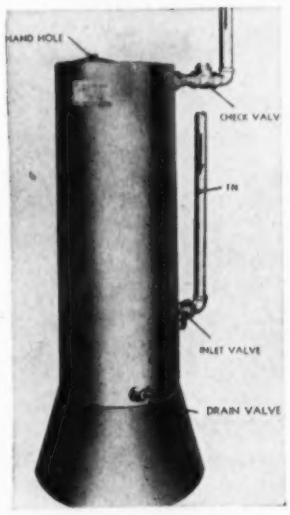
CENTRIFUGAL FAN
features weatherproof housing



Weatherproof hood over motor drive section of this centrifugal fan permits installation outdoors without further protective enclosure. Fan is available in backwardly inclined and forwardly curved, single width, single inlet models in class I construction. Fan diameters up to 60 in. are offered. Arrangement No. 10 fans have high efficiency, low noise level and low horsepower characteristics. Made by **Trane Co.,** 2018 Cameron Ave., La Crosse, Wis.

For more details circle NED-8700 on enclosed inquiry slip

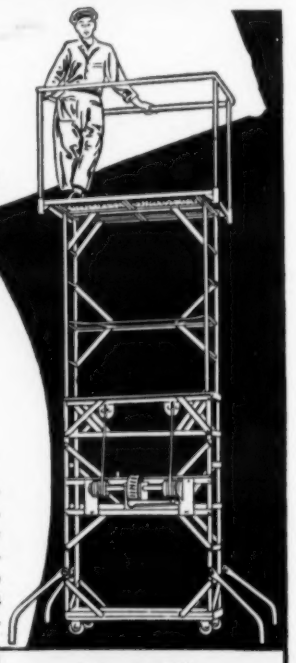
COMPRESSED AIR DRIER
cleans air by centrifugal force



Removing moisture, oil, dust, smoke, scale and excess humidity from air used to operate pneumatic tools as well as drying of processing tanks, pipe systems and refrigerating coils is function of Vi-Speed air drier. Units are built in cylindrical tanks which are divided into three sections. Lowest section contains accumulator for foreign material and solution atomizer; the center section, baffles and screens; and upper section holds Dryolite, a soluble filter material. Air contaminants are removed by filtration and centrifugal force, plus a modified emulsion and washing process. Available are model 200 for gas volumes up to 200 cfm and model 25 which delivers 25 cfm. Both operate on 100 psi. Made by **Van Products Co.,** 3734-29 W. Twelfth St., Erie, Pa.

For more details circle NED-8701 on enclosed inquiry slip

No Erection Required . . . Use at Any Height
HI-LIFT
PORTABLE WORK PLATFORM



for
Overhead Maintenance, Painting, Lighting, Cleaning, etc.

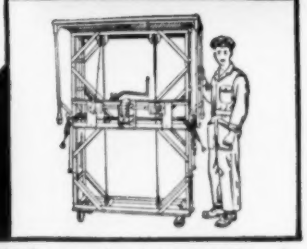
- Safe, Sturdy, Dependable
- No Loose Parts
- Easily Rolled . . . Easily Raised

When safety counts, count on Hi-Lift. Sturdy, all welded steel construction means absolute safety . . . outrigger brace prevents tilting or rolling. Small enough to pass through doorway, yet raises to 11 ft. 6 in. Endorsed by leading concerns.

Also Makers of HI-LIFT Extension Scaffold and ATLAS One-Man Truck Loader.

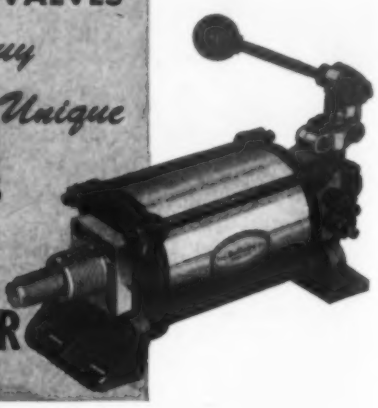
Write for Complete Information

ATLAS INDUSTRIAL CORP.
853 39th Street
Brooklyn 32, N. Y.



For more details circle NED-8702 on enclosed inquiry slip

NO EXTRA VALVES To Buy With This Unique Bellows AIR CYLINDER



HERE is an air cylinder complete in itself. Valve, valve operating lever, and piston stroke speed controls are built in — integral parts of the Air Cylinder. There are no extra valves to buy. No cumbersome piping to install. Only one air connection is required which may be flexible hose.

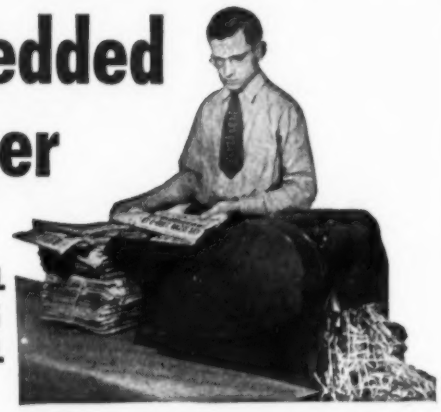
Known everywhere as the Bellows Air Motor, this compact power unit provides new versatility in the use of air.

Write for Bulletin. Address Dept. NED 1151-2.

906
The Bellows Co.
AKRON, OHIO

For more details circle NED-8703 on enclosed inquiry slip

Shredded Paper IS THE IDEAL PACKING MATERIAL



produce it yourself for . . .

(1) Real dollar & cents savings
(2) Minimum inventories
(3) Substantial space savings
(4) Dependable supply

Test a "Silver" paper shredder in your own shop without obligation—Get complete details by writing *today* to:

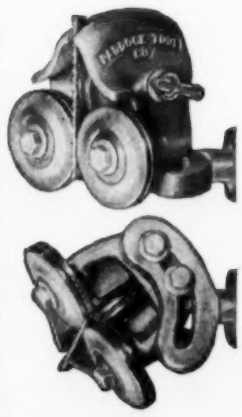
INDUSTRIAL SHREDDER & CUTTER CO.
107 Mill Street Salem, Ohio

For more details circle NED-8704 on enclosed inquiry slip

MORE SPEED MORE SUPPORT

NEW "PADDOCK GUIDES" FOR BAND-SAWS SET AT ANGLE UP TO 45°

With this new PADDOCK BALL-BEARING GUIDE MODEL 20, blade can be held at an angle—permitting a 36 inch machine to cut material 22 inches thick at an angle up to 45° to any length. The guides are easily adjusted to width, thickness, and blade angle—the ball-bearing wheels reduce blade breakage and hold the working portion of the blade so that more and better work can be turned out. **NOTE: Lower Unit is turned to show angular adjustment.** Write for price and details on this NEW GUIDE today.



PADDOCK TOOL COMPANY
1418 Walnut St., Kansas City 6, Mo.
Guide Makers Since 1920

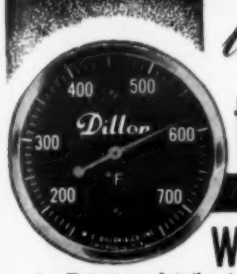
Paddock
BALL-BEARING
BAND SAW GUIDES

For more details circle NED-8705 on enclosed inquiry slip

FOR ACCURACY

PRECISION DILLON THERMOMETERS OFFER THE FINEST IN SCIENTIFIC HEAT CONTROL

These carefully engineered instruments can be screwed into tanks, boilers, kettles, stacks, pipes, etc. Come in *standard* stem lengths of 5" or 9" with special *intermediate* lengths up to 80". Dials are 1", 2¼", 3" or 5" dia. as desired. Made of acid-resisting stainless steel. Numerous ranges from as low as 0-200° F. up to 200-1000° F. Also available in Centigrade ranges. DILLON engineers will be glad to adapt this unit to your product if you are an O.E.M. Thousands in use. Write for illustrated brochure and prices.



the DILLON *dial*
STAINLESS STEEL
thermometer

W. C. DILLON & CO. 1421-NE South Circle Ave. Forest Park, Illinois

For more details circle NED-8706 on enclosed inquiry slip

INGENUITY
can solve any problem

if YOUR PROBLEM
involves the higher production of threaded parts
HY-PRO TAPS
can help you to a solution

HY-PRO TOOL CO.
NEW BEDFORD, MASS. U. S. A.
Subsidiary of Continental Screw Co.

Order from your distributor or call the HY-PRO SALES ENGINEER

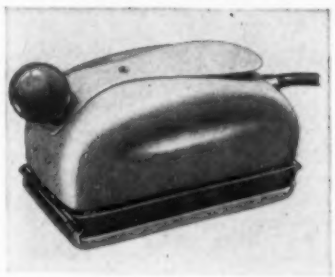
For more details circle NED-8707 on enclosed inquiry slip

MIDGET RELAYS
multiple contact telephone type

Made to meet operating requirements typical of Armed Service applications, line of midget multiple-contact telephone type relays has vibration and shockproof characteristics. They are offered with sealed or unsealed octal base and with snap-on dust covers and hermetically sealed containers. With coils varnish-impregnated to resist high humidity conditions, relays also are equipped with modified type AN 3106-20-27P sealed connector. Coil windings are for direct current voltages up to 115 as specified and contacts are palladium, rated at 3 amp noninductive. Made by **Signal Engineering & Mfg. Co.**, Dept. NED, 154 W. Fourteenth St., New York 11, N. Y.

For more details circle NED-8708 on enclosed inquiry slip

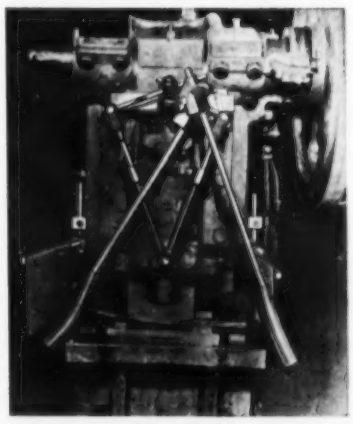
RECIPROCATING AIR SANDER
design permits one-hand operation



Straight-line, reciprocating action of Easy pneumatic sander which operates on 70 psi permits sanding up to right angles and does not cut abrasive patterns. Unit weighs 6 lb and uses one-third of standard 9 x 11-in. sheet of abrasive paper. Grip design permits one-hand operation and front handle facilitates overhead and other awkward applications. Paper holder allows easy attaching of even the coarsest abrasive grits with paper or cloth back. Made by **Detroit Surfacing Machine Co.**, 1333 E. Eight Mile Rd., Detroit 20, Mich.

For more details circle NED-8709 on enclosed inquiry slip

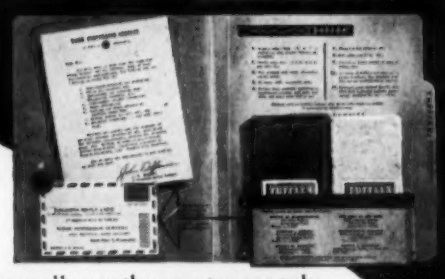
SWEEP TYPE PRESS GUARD
offered with nonrepeat device



With ram in up position, both arms of sweep type guard for short stroke long die power presses are suspended in front of center of bolster plate, one arm in front of the other. As ram descends, two arms swing right and left respectively from central position. Entire working area of press is swept clear before downward stroke has progressed far enough to close on fingers or hands. Guard is mounted on hinged bar for swinging to one side when changing dies or making adjustments. It can be equipped with reset counter which records each downward stroke. Nonrepeat device is also available. Made by **Searjeant Metal Products, Inc.**, Box 89, Mendon, N. Y.

For more details circle NED-8710 on enclosed inquiry slip

THERE'S NEWS FOR YOU IN THIS TUFFLEX SAMPLE KIT

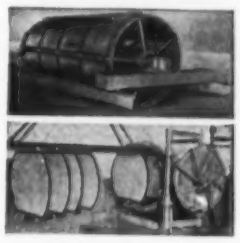


Manufacturers all over the country are solving design problems, simplifying production, achieving new economies, increasing salability —with TUFFLEX, the remarkable fiber felt. There's practically no end to TUFFLEX versatility. It cushions. It protects. It absorbs sound—dampens vibration. It insulates. It die cuts with firm, true edges. New applications are turning up constantly. Perhaps TUFFLEX can solve a problem for *you*. Send now for free sample kit, containing TUFFLEX samples and giving specifications! Wood Conversion Company, Dept. 127-111, First National Bank Bldg., St. Paul 1, Minnesota.

WOOD CONVERSION COMPANY

For more details circle NED-8711 on enclosed inquiry slip

why look further for special metal assemblies? call *Cambridge* your approved source for properly designed crates, racks, trays, baskets or fixtures ··expertly fabricated from any metal or alloy...



for processing your products or materials, in bulk, through liquids, heat, gases or corrosive agents.

Submit your own blueprints for quotation, or merely give us the details of the process for which the assembly must be designed. Our trained engineers and metalworkers will do the rest.

Look under "Baskets—Wire" in your Classified Telephone Directory to call your Cambridge Field Engineer, or write direct.

Ask for FREE folder describing Cambridge facilities for special metal fabrications.

The Cambridge Wire Cloth Co.
WIRE CLOTH | METAL CONVEYOR BELTS | SPECIAL METAL FABRICATIONS
Department C
Cambridge 11, Md.

For more details circle NED-8712 on enclosed inquiry slip

Bulletin 600 Manual Starting Switches

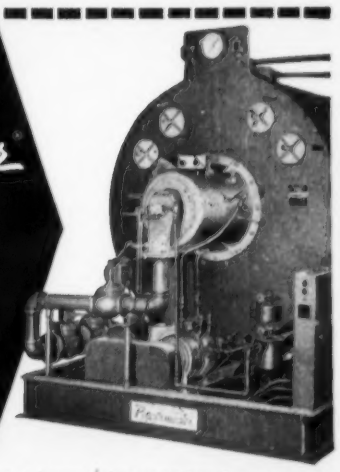
- Compact, attractive design
- Available in special enclosures

Bulletin 600 Manual Starting Switches are extensively used for air-conditioning and refrigeration service. Accurate and dependable overload protection for motors of one horsepower or less on a-c, or ¾ hp or less on d-c. Thermal overload elements available in a variety of ratings. Meet all N.E.C. requirements. Write for descriptive bulletin. Allen-Bradley Co., 1334 S. Second St., Milwaukee 4, Wis.

ALLEN-BRADLEY
QUALITY
MOTOR CONTROL

For more details circle NED-8713 on enclosed inquiry slip

ONLY THE *Powermaster* GIVES YOU ALL 3 ADVANTAGES



1. Wide range between high and low fire—you use less fuel. 2. Freedom from carbon cuts clean-up time and expense—usually by 50%. 3. Change from oil to gas (or gas to oil) in a few minutes.

To Cut Your Steam Costs Mail Coupon Today

ORR & SEMBOWER, INC. • 930 Morgantown Road • Reading, Pa.
Please send my free copy of the POWERMASTER catalog.

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COMPANY _____
ADDRESS _____
CITY _____ ZONE _____ STATE _____

For more details circle NED-8714 on enclosed inquiry slip

The Cement In This Hopper Flows Freely

V-55 Vibrator keeps cement in this weigh hopper from arching and plugging. Also, assures "true" flushing of hopper for accurate weighing.

SYNTRON

Pulsating Magnet

ELECTRIC VIBRATORS

With Variable Control of Power

3600 controllable vibrations per minute keep the most stubborn materials flowing freely thru bins, hoppers, chutes and screens. . WITHOUT THE HAMMERING AND RODDING AND POKING THAT WASTES MANPOWER AND DAMAGES EQUIPMENT. Vibrators for 1 cu. ft. hoppers up to large storage bunkers.

Write To—

SYNTRON CO.
405 Lexington Ave. Homer City, Pa.

▲ For more details circle NED-8715 on enclosed inquiry slip ▲

Lincoln

BULLNECK* FITTINGS

The Only Complete Line of Grease Fittings with THE BALL-IN-THE-HEAD

Throat of Ordinary Hydraulic Fittings Clog with Dirt and Grit

Look at these Construction Features

FOUND ONLY IN LINCOLN BULLNECK* FITTINGS...*AT NO EXTRA COST!*

1. **Flush Ball Check**—Head can be wiped clean without forcing dirt into fitting and into bearing.
2. **Large Grease Passage**—The larger internal diameter permits greater flow of lubricant.
3. **Special Spring Design**—Spring cannot be compressed to restrict flow of the heaviest lubricants.
4. **Sturdier Construction**—Enlarged neck size and projecting locking pad protect against damage and wear.

BULLNECK* FITTINGS Are Available in the Complete Range of Types and Thread Sizes

Write for Additional Information and Catalog, or Contact Your Nearby Lincoln Sales Office

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CHICAGO, ILLINOIS Lincoln Eng. Co. of Ill. 2415 S. Michigan Avenue Calumet 5-6022
CLEVELAND, OHIO Lincoln Lub. Systems, Inc. 4500 Euclid Avenue Express 1-4334
DETROIT, MICH. Lincoln Engineering Co. 8627 Woodward Avenue Trinity 5-3484
EAST ORANGE, N. J. Lincoln Lub. System, Inc. 18 Central Avenue Orange 3-3188
FORT WORTH, TEXAS Fritz Keller P. O. Box 9008 Sunset 5451
LOS ANGELES, CALIF. Lincoln Eng. Co. of Calif. 2844 S. Grand Avenue Richmond 0151
MILWAUKEE, WISC. Lincoln Equipment Co. 1618 West Wells Street Division 2-1191
LONG ISLAND, N. Y. Lincoln Lub. Systems, Inc. 48-14 36th Street Ravenswood 9-2529
BERKELEY, CALIF. Lincoln Eng. Co. of Calif. 3033 San Pablo Ashberry 3-6726
PAWTUCKET, R. I. H. G. Davis, Inc. 587 Pawtucket Avenue Pa. 2-7400
PHILADELPHIA, PA. Lincoln Engineering Co. 3117 N. Broad Street Radcliff 5-8900
PITTSBURGH, PA. Lincoln Engineering Co. 134-36 S. Whitfield Montrose 1-1444
PORTLAND, OREGON Pioneer Equipment Co. 1018 S. E. 8th Avenue Empire 0488

• • • PIONEER BUILDERS

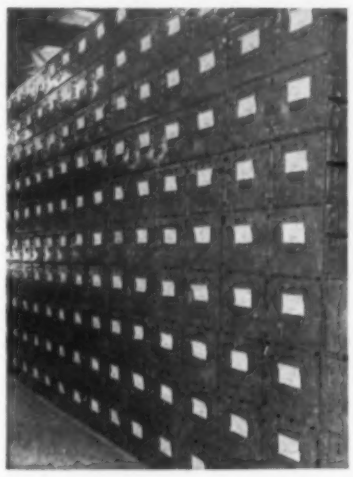
*Tradename Registered

LINCOLN LUBRICATING EQUIPMENT • • •

LINCOLN ENGINEERING CO., 5782 Natural Bridge Ave., St. Louis 20, Mo.

▲ For more details circle NED-8716 on enclosed inquiry slip ▲

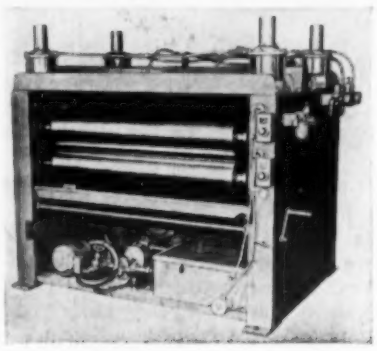
PERMANENT STORAGE FILES made of impregnated fiber board



Fully loaded Chem-Board storage files, made of chemical-impregnated raw corrugated fiber board, can be stacked to ceiling without intermediate supports. These permanent storage files mate together vertically, operate freely without sagging or binding, repel vermin and are impervious to moisture. Units are shipped ready for use and are stitched with steel wire. Fourteen sizes are available, as are special sizes upon order. Made by **Convoy, Inc.**, 3224 Navarre Rd. S.W., Canton 6, O.

▲ For more details circle NED-8717 on enclosed inquiry slip ▲

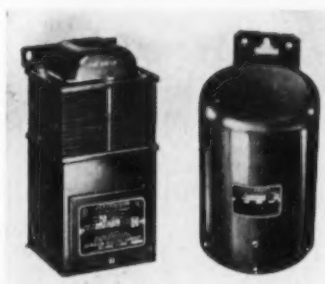
ROLLER COATING MACHINE spreads compounds on sheet metal



Uniform application of drawing compounds to sheet steel prior to drawing operation can be made with roller coater built in sizes to fit any stock up to 96 in. Machine shown is equipped with three pairs of rolls. The first pair is hardened steel for deburring the stock; the second, neoprene-covered for application of compound; and third, hardened steel to squeeze off excess compound. Machine is equipped with circulating pumping unit to feed coating rolls. Made by **Union Tool Corp.**, 222 E. Market St., Warsaw 30, Ind.

▲ For more details circle NED-8718 on enclosed inquiry slip ▲

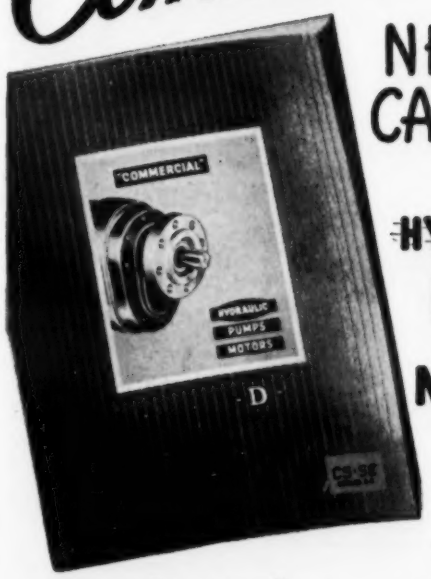
MERCURY LAMP TRANSFORMERS made in indoor and outdoor types



Designed to meet specifications of mercury vapor H-1 lamps is this revised line of indoor and outdoor type transformers. Indoor types include single and two lamp units with normal and high power factor for 115 and 230-v circuits. They are equipped with roomy wiring compartments having ½ and ¾-in. knockouts. Aerial, pole top, pole base and vault types for boundary lighting, building exterior lighting, parking and shipping area illumination make up outdoor line. Made by **Jefferson Electric Co.**, 903 S. 25th St., Bellwood, Ill.

▲ For more details circle NED-8719 on enclosed inquiry slip ▲

Commercial's



NEW CATALOG *on* HYDRAULIC OIL PUMPS *and* MOTORS

Now Ready for you on Request.

THE COMMERCIAL SHEARING AND STAMPING CO.
P. O. BOX 719 YOUNGSTOWN 1, OHIO

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Quick Switches

are a DAVEN *Specialty*

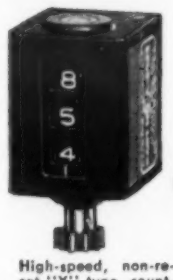
And the "specialty of the house" is double-barreled . . . first, choose from hundreds of standard units to satisfy your needs—for quick switch delivery . . . second, Daven can effect quick 'switches' or changes from standard units to special switches, by using components at hand. That, too, makes for speed, dependability, economy. Write for more detailed data.

THE DAVEN CO. *199 Central Ave. Newark 4, N. J.*

▲ For more details circle NED-8721 on enclosed inquiry slip ▲

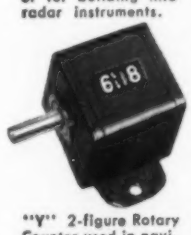
PRODUCTIMETER "*SPECIALS*"

for Radar and Electronic Applications



High-speed, non-reset "Y" type counter for building into radar instruments.

Special counter adapted from "CS" Top Reading Model for instrumentation application.



"Y" 2-figure Rotary Counter used in navigating instruments.

Productimeter "SPECIALS" are designed and manufactured for specific counting applications. Where one of many standard Productimeters is not the exact answer to a problem, Durant engineers modify, combine, or develop entirely new counters to meet the particular requirements of the job. The models shown are a few of the more interesting specials developed in our modern plant. Your counting problems can be readily solved.

Write for Bulletin

DURANT MANUFACTURING CO.
1922 N. Buffum St. Milwaukee 1, Wis. — 122 Orange St. Providence 3, R. I.
Representatives in Principal Cities

PRODUCTIMETERS SINCE 1879 *Count Everything*

▲ For more details circle NED-8722 on enclosed inquiry slip ▲

IF YOU WALK ON IT IT CALLS FOR OPEN STEEL FLOORING

SAFE FOOTING

AT EVERY STEP

Build safe, dependable walking surfaces in your new or present industrial plant—indoors and outdoors—with Open Steel Flooring . . . the versatile, durable flooring of strength, safety, ventilation and light.

Be sure to investigate Open Steel Flooring and the new Specifications as described and illustrated in our new 16-page Idea-Book, "Versatile." Your free copy is ready to mail on request. Write for it today.

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HENDRICK MANUFACTURING CO. Carbondale, Pa.
IRVING SUBWAY GRATING CO., INC. Long Island City, N.Y.
STANDARD STEEL SPRING CO., Gary, Indiana

▲ For more details circle NED-8723 on enclosed inquiry slip ▲

The adjustable handle makes it possible to scrub and wax polish in congested places where hand cleaning was necessary before—around and under machines, counters, desks, lockers, etc.

Operator can raise or lower handle to any angle within an 80 degree arc and shove the Lawlor under anything where there is at least a 9½" opening and as far back as 4½ feet.

Three models—a size to suit every need.

There's a complete line of Lawlor Floor Maintenance Equipment—scrubbers, wax polishers, mopping tanks, mop wringers.

Write for literature on adjustable handle models and other Lawlor units.

S. C. LAWLOR CO.
Quality Floor Equipment for 50 years
121 N. Aberdeen St., Chicago 7, Ill.

For more details circle **NED-8724** on enclosed inquiry slip

Protect As You Project
Delicate Precision Parts

PACKAGE in

Clearsite

Plastic Selling Containers

Drills and tools, industrial jewels, taps and dies, screws, springs, nozzles, valves, fine machine parts, fishing tackle, electrical parts, and many, many others can be packaged for perfect visibility and the utmost in protection in the container that's featherlight (¼ the weight of glass) • shatterproof • flexible or rigid • permanently printed • clear or opaque in all colors • eventually a re-use container.

Write for your FREE copy of the new, fully illustrated brochure that points up the many uses and advantages of Clearsite Plastic SELLING Containers.

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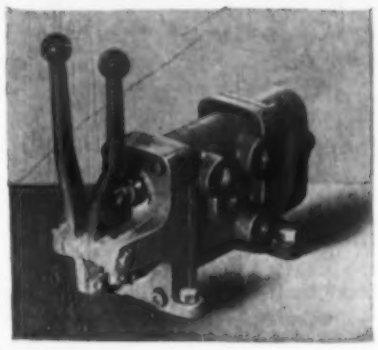
AMERICA'S #1 SOURCE FOR PLASTIC CONTAINERS
ESTABLISHED 1919

For more details circle **NED-8725** on enclosed inquiry slip

HYDRAULIC CONTROL VALVE
levers can be operated by one hand



Heavy duty and light weight spool and sleeve type valves, applicable to machine tools, farm and road machinery and aircraft, will control two single-acting lifting cylinders and one double-acting cylinder. Levers can be operated by one hand, independently or simultaneously. Working pressures up to 1500 psi or more are accommodated with capacity of 6 to 10 gpm. Variations of valve for specific control problems are available. Made by **American Industries Co.**, Dept. 42, Bristol, Pa.

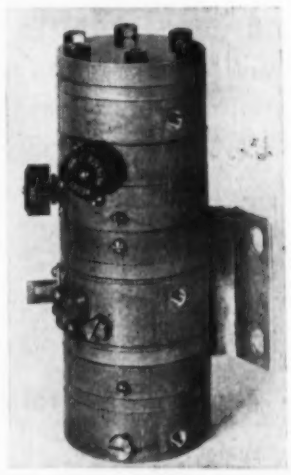
For more details circle **NED-8726** on enclosed inquiry slip

SAFETY FUSE WALL PLUG
aids in locating shorts

Danger of electrical fires due to damaged extension and lamp cords is reduced through use of Fireguard safety plug having built-in replaceable fuse. Electrical appliances plug directly into this double outlet fuse coupling which fits into standard wall socket. Fuse breaks circuit instantly when short occurs, preventing current from reaching danger point and short from reaching main circuit. Made by **F. H. Smith Mfg. Co.**, 3038 Carroll Ave., Chicago 12, Ill.

For more details circle **NED-8727** on enclosed inquiry slip

PROCESS CONTROLLER
responds to pneumatic signals

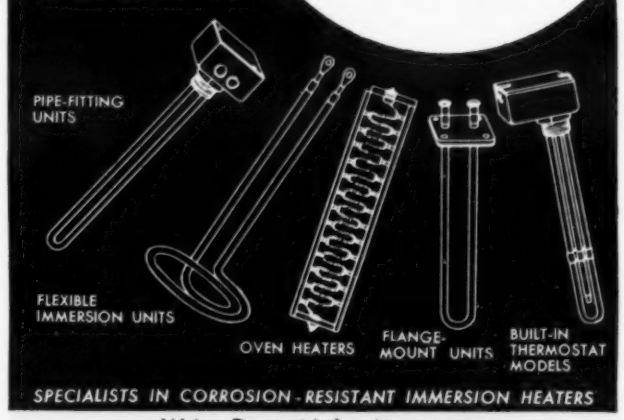


Operating on pneumatic balance principle which minimizes friction and lost motion, Tel-O-Set controller provides instantaneous and accurate control of flow, temperature, pressure, liquid level and other industrial process variables. Device was developed for use with the differential converter, the Tel-O-Set indicator and the recorder. It is made in two types, one with fixed proportional band, the other with adjustable proportional band. Units are constructed of a number of coded interchangeable sections separated by diaphragms and are equipped with universal mountings. Developed by **Minneapolis-Honeywell Regulator Co.**, Brown Instruments Div., Wayne & Roberts Aves., Philadelphia 44, Pa.

For more details circle **NED-8728** on enclosed inquiry slip

THERMALINK *Electric* HEATING ELEMENTS
OVER 600 STANDARD MODELS & TYPES

IMPROVE YOUR ELECTRICALLY HEATED PRODUCTS AND EQUIPMENT WITH THERMALINK ELEMENTS



SPECIALISTS IN CORROSION-RESISTANT IMMERSION HEATERS

Write Dept. N for Literature
ELECTRO-THERM INC.
8024 GEORGIA AVE., SILVER SPRING, MD.

For more details circle **NED-8729** on enclosed inquiry slip

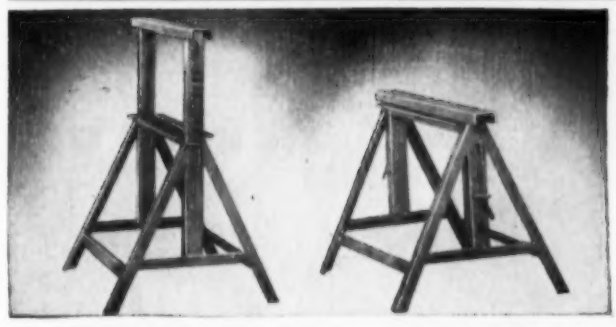
Acid and wear resistant castings

Stop excessive down-time by using cast parts that can stand both corrosive and abrasive wear. The special parts shown are cast of Colmonoy, an extremely abrasion and corrosion resistant group of alloys. Almost any part can be either sand or precision cast, working from customer's sketches. Many standard castings are available, including a full range of lathe and grinder center tips, and centerless grinder blade tips.

Money lost through equipment being temporarily down, and that spent for replacement parts, can be saved. Write for our Castings Catalog—now.

DIAMONDS and TOOLS, Inc.
19347 John R Street • Detroit 3, Michigan

For more details circle **NED-8730** on enclosed inquiry slip



EVERY PLANT CAN USE ADJUSTABLE STEEL HORSES

They are the "work horses" in every plant or shop . . . more than pay for themselves, and are never idle because of the many uses their ready adjustability will easily serve:

SPOT WELDING TABLES	SCAFFOLDING
FABRICATION SUPPORTS	CONVEYOR SUPPORTS
LAYOUT WORK	MAINTENANCE WORK
BENCHES	And many other uses

MODELS FOR HEAVY OR LIGHT WORK

Standard length 36". Low Height 24"; Extended Height 42". Adjustable at 1½" intervals. Held in position by steel lock pins. All units portable. Painted one coat chrome yellow.

IMMEDIATE DELIVERY
Write for full information

Bruno HANDLING EQUIPMENT
BRUMMELER STEEL PRODUCTS CORPORATION
1411 Ionia Ave. S. W., Grand Rapids, Michigan

For more details circle **NED-8731** on enclosed inquiry slip

REDUCES ACCIDENT HAZARD IN PRINTING PLANT!

More Proof that
PABCO MASTIPAVE
is the floor covering for YOU!

Listen to Harold Baxter, Vice-President of A. Carlisle & Co., one of San Francisco's largest printing concerns:

"Mastipave is so satisfactory we are planning to install it in other work areas. Our employees stand most of the time—really appreciate this floor covering. It's comfortable underfoot—has actually reduced the accident hazard from slips and falls. Employee efficiency is so important we couldn't do without Mastipave today. Under rough treatment, including light trucking, Mastipave has stood up well—low in cost—easy to maintain."

PABCO MASTIPAVE
in roll goods and tiles

GRIP-TREAD
in roll goods only

. . . Proved, for over 28 years—in schools, industries, hospitals, public buildings.
. . . Costs little, looks good, wears long.
. . . Worth investigating, for YOUR toughest job!

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PABCO PRODUCTS INC.
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(Mail to Dept. L, nearest office)

GENTLEMEN: Without cost or obligation to me, please send folder, "Every Building Needs Pabco Mastipave."

NAME _____
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For more details circle **NED-8732** on enclosed inquiry slip

MEASURE OVER 50 LIQUIDS WITH METER SURETY

You can batch mix, blend or process most any liquid with Rockwell industrial meters. You can do it quicker and more accurately. You'll gain the safety of a closed piping system. *You'll save money!* Get facts now. Ask for bulletin.

Sizes ⅜ to 3" in suitable materials. Option on type of register. Automatic shutoff controls available.

Dept. L

ROCKWELL MANUFACTURING CO.
Pittsburgh 8, Pa.

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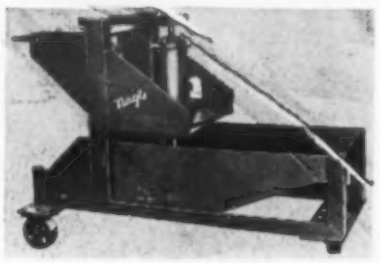
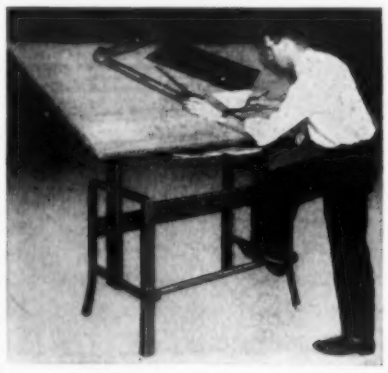
PUMP & SUMP UNIT
portable unit moved by one man



Portable combination pump and sump unit is designed for transfer of 1.9 specific gravity material at rate of 33 gpm against head of 50 ft. Electric motor driven 1½-in. type SW-OB vertical shaft pump is rigidly mounted on metal tank cart with impeller suspended in sump in bottom of cart. Both pump and sump are easy to clean. Pump parts are made of wear resistant materials. Entire unit is mounted on large casters for easy handling by one man. Made by **Nagle Pumps, Inc.**, 1265 Center St., Chicago Heights, Ill.

▲ For more details circle NED-8736 on enclosed inquiry slip ▲

DRAFTING TABLE
height and angle are adjustable



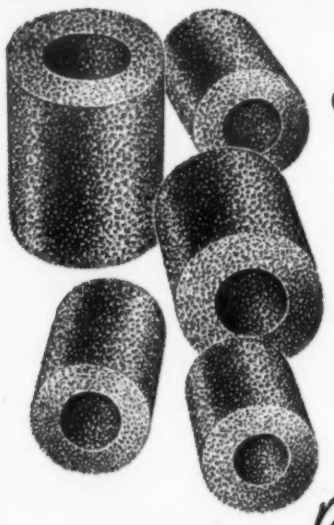
Equipped with leveling device and comfortable foot rest, Stay'Ble drafting table is of all steel construction with smooth sugar pine tongue - and - groove top. Leg base area is 25½ x 42 in., and height is adjustable from 33 to 47 in. Pencil tray measures 12 x 39½ in. Overall size of board, which tilts from 0 to 50 degrees, is 42 x 72 x 1 in. Board finish is natural with protective coating. **Made by Emrick, Inc.**, 1400 Clinton Ave., Kalamazoo, Mich.

▲ For more details circle NED-8737 on enclosed inquiry slip ▲

PAPER SHREDDERS
produce packing materials rapidly

Resilient packing material made by Marvel paper shredders possesses up to three times more volume than baled paper, saves weight and postage and offers ample protection to product. Machines are built with throat openings of 10, 18, 20 and 25 in. and are capable of shredding up to 35 thicknesses of newspaper simultaneously in ¼ or ⅜-in. widths, depending upon machine size and model. Three larger models are power driven, while smallest is hand driven. Cutters on all models are completely guarded. Feeding is continuous through tunnel in rear of machine. Made by **Van Dyke Industries**, 3625-D Cahuenga Blvd., Los Angeles 28, Calif.

▲ For more details circle NED-8738 on enclosed inquiry slip ▲



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Rapid Delivery

MANUFACTURED TO ORDER

Chicago Internal Grinding Wheels produce better finishes with longer wheel life and cutting action. They're your best buy—"tailor made" to your specifications and speedily delivered.

Advanced production methods assure you perfectly balanced Internal Wheels to meet rigid finishing requirements. Faster delivery . . . with overnight service for special jobs.

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CHICAGO WHEEL & MFG. CO.
Dept. NED, 1101 West Monroe St.
Chicago 7, Illinois

▲ For more details circle NED-8734 on enclosed inquiry slip ▲

More for your money!

New STEELITE® WHEELS — with sealed-in ball bearings that keep grease in, dirt out and eliminate axle wear—make American Hand Trucks a better buy than ever! **And most popular models now sell for less than before!**

The side rails and cross bars of these familiar red trucks are channel-section steel for hardest service. Pressed-steel bolted construction keeps maintenance costs down. Light weight and fingertip balance make them the easiest-handling trucks you can buy!

Choose American Hand Trucks from 50 types and sizes for most efficient material handling at lowest cost . . . stocked by distributors everywhere.

AMERICAN PRESSED-STEEL HAND TRUCKS

The American Pulley Company
4294 WISSAHICKON AVE., PHILA. 29, PA.

Please mail free American Hand Truck Bulletin to

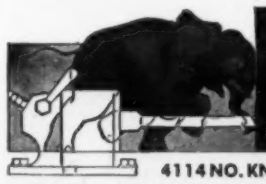
NAME _____ TITLE _____
COMPANY _____
ADDRESS _____
CITY _____ ( ) STATE _____

▲ For more details circle NED-8735 on enclosed inquiry slip ▲

Air Operated
ROTARY WORK FEEDER

Deftly holds and delivers small parts to drill, tap, swage, stake, etc. Stations accurate to .002". Guaranteed against over-travel or "skipping". Indexes as slow or fast as you like, up to 10,000 per hour. Compact and sturdy, easy to tool and hook up.

Standard dial plate 10"; available in 12". For a new job, simply tool up a new dial. Readily combines with "MEAD-MATIC" Timer, Air Hammer, Air Press, Drill presses, etc.—to make almost completely automatic machine—operator merely loads. Write for full details.



MEAD SPECIALTIES COMPANY
4114 NO. KNOX AVE., DEPT. NA-111, CHICAGO 41, ILL.

▲ For more details circle NED-8739 on enclosed inquiry slip ▲

PULLMAX DOES IT ALL!

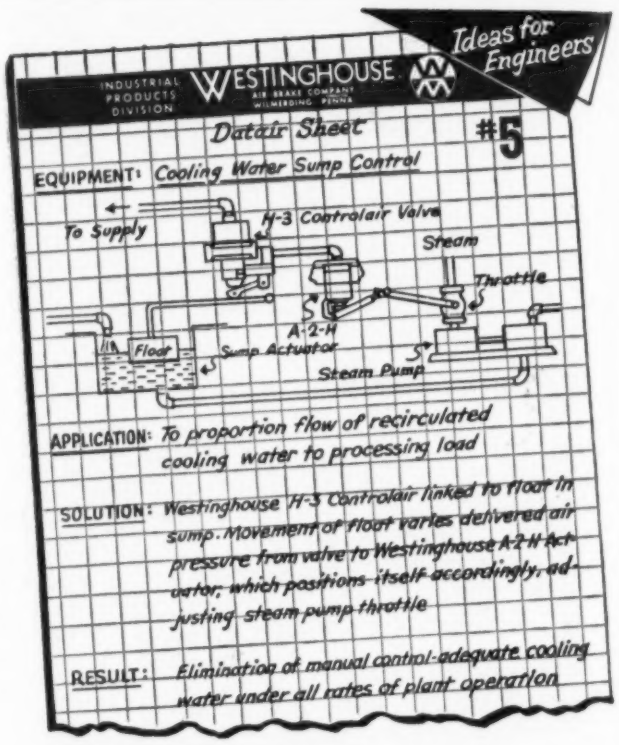
PULLMAX
Sheet and Plate Working Machines

Imagine, one machine doing all of these operations—seven models that work the finest gauges up to 11/32" (in mild steel). Also ideal for working stainless, non-ferrous metal, wire mesh. Leaves a smooth perpendicular cut with no further finishing required. Pullmax does it better . . . faster.

WRITE FOR ILLUSTRATED CATALOG

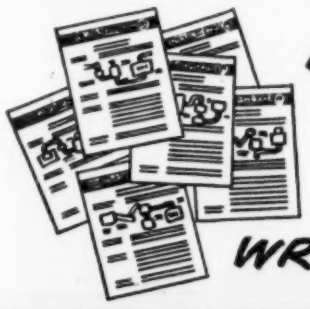
AMERICAN PULLMAX CO., INC.
2629 North Western Avenue Chicago 47, Illinois

▲ For more details circle NED-8740 on enclosed inquiry slip ▲



Give Your Control Problems the AIR

Here's an example of how one smart Plant Engineer used W A B Pneumatic devices to inexpensively lick a continuous control problem. Our Engin*air*ing Data File shows many others. Your ingenuity will suggest ways you can adapt the ideas to solve some of YOUR problems. Write for a complete file for permanent reference. No charge.



FREE
This Enginairing data file
WRITE

INDUSTRIAL PRODUCTS DIVISION **WESTINGHOUSE** AIR BRAKE COMPANY WILMERDING, PENNA.

Factory Branch: Emeryville, Calif.
Distributors throughout the United States . . . Consult your Classified Directory.
Distributed in Canada by: Canadian Westinghouse Co., Ltd. Hamilton, Ontario

▲ For more details circle NED-8741 on enclosed inquiry slip ▲

for • SPRAYING • WASHING • RINSING • COOLING • AIR CONDITIONING

Get the most out of your Spraying Equipment with minimum power . . . with efficient spraying.

Use Yarway Nozzles. No internal vanes or other restrictions to clog or hinder flow.

Wide range of standard sizes and capacities. Cast or machined from solid bar stock.

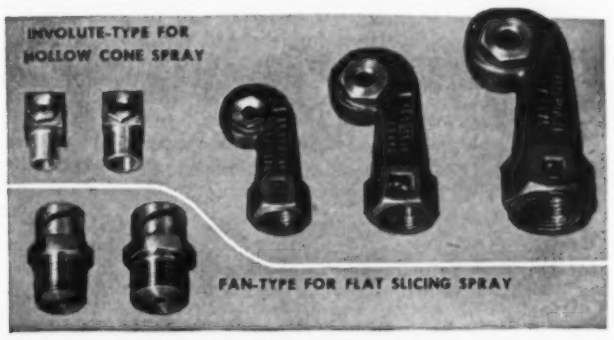
Thousands in use. Write for Bulletin N-616.

YARWAY

SPRAY NOZZLES

YARNALL-WARING COMPANY

131 Mermaid Avenue, Philadelphia 18, Pa.



For more details circle NED-8742 on enclosed inquiry slip

BRADY QUIK-LABEL PIPE MARKERS

FAST... POSITIVE IDENTIFICATION

For a few cents per pipe, you can equip your entire plant with Brady QUIK-LABEL Pipe Markers. You can get a uniform system of pipe identification based on A.S.A. Standard A13. Names of materials printed in large black letters on correct A.S.A. background colors — no hand stenciling, painting, or hard to remember codes. Anyone who can read can tell at a glance the pipe contents and direction of flow. Over 235 different markers and direction arrows in stock. Specials made to order.

Brady QUIK-LABELS stick without moistening—applied in a jiffy, Silicone Plastic treated to resist dirt, grime, moisture—for indoor or outdoor service.

Brady Pipe Markers leave no room for doubt . . . or TRAGEDY.

WRITE FOR Free SAMPLES AND USEFUL CATALOG

DISTRIBUTORS IN OVER 125 PRINCIPAL CITIES

MANUFACTURERS OF SELF-STICKING PRODUCTS

W. H. BRADY COMPANY

1672 E. SPRING STREET • CHIPPEWA FALLS, WIS.

For more details circle NED-8743 on enclosed inquiry slip

TRI-LOK

Each Tri-Lok step consists of a panel of Rectangular, Diagonal, or U-type Tri-Lok flooring in any desired width, length, depth, and bar spacing.

SAFE—checker plate nosing bars make each step stand out clearly. Abrasive edging also available.

CLEAN—clogless, rivetless Tri-Lok joint prevents accumulation of dirt, moisture, rust.

STRONG—added strength provided at maximum load contact by shape and rigidity of nosing bar.

Write today for bulletin NV-1103

DRAVO CORPORATION

National Distributor for the Tri-Lok Company

Dravo Building, Pittsburgh 22, Pennsylvania

Sales Representatives in Principal Cities

DRAVO

For more details circle NED-8744 on enclosed inquiry slip

DRINKING WATER PURIFIER removes bacteria, dirt, chlorine

Made of polished stainless steel for installation at any point of use, this water purifier removes harmful bacteria and organisms, dirt, chlorine and other tastes from drinking water. No plumbing changes are required for installation of 6 x 6½-in. device. Filter purifies several hundred gallons of water before replacement is necessary by removing top of unit. Made by **Ogden Filter Co.**, Dept. 5-G, 4214 Santa Monica Blvd., Los Angeles 27, Calif.

For more details circle NED-8745 on enclosed inquiry slip

MULTIPLE SPINDLE DRILL UNIT is adaptation of single spindle unit

Addition of compact multiple head to standard self-contained automatic drilling unit converts it to custom two-spindle drill or tapping unit. Forward and reverse movement of spindles is completely automatic, and close tolerance depth drilling is accomplished by arrangement of built-in limit switches. All moving parts operate in constant bath of oil. Shown is unit adapted for tapping, equipped with quick-reversing motor, hardened and ground lead screw and two spindle tapping head. Drill unit capacities are up to ¼ in. in steel, while tapping units, normally made as single spindle units, have capacities up to ⅜ in.-16 thread, depending on material. Made by **Precision Thread Engineering Co.**, 2542 Park Ave., Detroit 1, Mich.

For more details circle NED-8746 on enclosed inquiry slip

LEATHER WORK GLOVES reinforced in wear areas

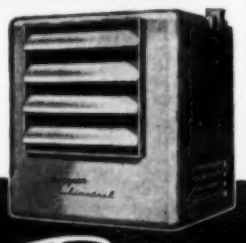
Improved line of leather work gloves features extra heavy Work-Welt reinforcement sewn into seam at base of two middle fingers where greatest wear is found to occur. Gloves are fabricated of chrome tanned selected cowhide split leather and made extra large to fit large as well as small hands. Other features are knuckle strap, finger tips, full leather thumb and forefinger. Elastic across back of glove assures good wrist fit. Either the gauntlet cuff or shorter safety type cuff is available. Made by **Peerless Glove Co.**, 633 Main St., Grand Haven, Mich.

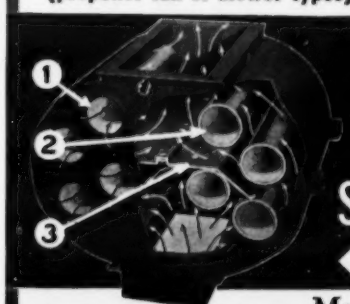
For more details circle NED-8747 on enclosed inquiry slip

Mueller Climatrol

space-saving gas-fired unit heaters

(propeller fan or blower types)





Proof of SUPERIORITY is here

1. One-piece all-welded steel heat exchanger — no tie-rod, bolted, gasketed, or slip joints to leak, separate or crack.
2. Uniform air flow and heat distribution — burner extends under entire heat exchanger; insures maximum fuel economy.
3. High Crown Sheet — no flame impingement, no hot spots.

MUELLER gives you a unit to fit every application — 4 sizes: 60,000, 90,000, 120,000 and 150,000 Btu input capacities. A.G.A. and Underwriters' Laboratories approved — with design features that assure longer life, greater economy. These units are *shipped assembled and pre-wired* for quick, low-cost installation. E-44

Write for full details —

L. J. Mueller Furnace Co.

2041 M W. Oklahoma Ave.

MILWAUKEE 15, WISCONSIN

For more details circle NED-8748 on enclosed inquiry slip

EX-CELL-O HYDRAULIC POWER UNITS

. . . For Your Special Purpose Machines

Ex-Cell-O Hydraulic Power Units provide a compact, flexible source of power for feeding, rotating and retracting cutting tools. They are especially suitable for automatic drilling reaming and counterboring, using a single tool held directly in the spindle nose, or using two or more tools in a multiple spindle head. Three standard units are available—styles 28-A, 21 and 20, shown above. For full information send for Bulletin 45361.

EX-CELL-O CORPORATION

DETROIT 32, MICHIGAN

For more details circle NED-8749 on enclosed inquiry slip

NEW BECKETT

Hi-CYCLIC VALVE!

MODEL BL

Available in 4 Port (3 or 4 way) and 5 Port Air and 4 Port Hydraulic Models with ⅛", ¼", ⅜" and ½" Ports.

PERMITS VARIABLE CYLINDER PISTON SPEED DURING A SINGLE STROKE BY HAND CONTROL

A high performance valve providing *complete control* of air or hydraulic cylinder action. For fixed metering, piston end nuts can be adjusted to obtain any desired speed of cylinder stroke. For full open ports, valve can be obtained with end nuts pinned. At any speed setting, including full open ports, speed of cylinder piston travel during a single stroke can be varied by operating hand lever.

The Beckett Model BL Hi-Cyclic Valve is rugged, compact; readily built into machine tools and production machinery. The ⅛" and ¼" Valves are equipped with a special mounting bracket permitting the valve to be mounted in four different positions. Write today for complete data on the Model BL and the *complete line* of Beckett Hi-Cyclic Basic, Single and Double Solenoid, Piloted Air and Hydraulic Valves.

Beckett Hi-Cyclic Model BL ⅜" and ½" 5 Port Air Valve equipped with exhaust controls.

BECKETT-HARCUM COMPANY,

1147 Wayne Rd., Wilmington, O.

For more details circle NED-8750 on enclosed inquiry slip

NEW! DODGE SLIDE-SET VISE

Cut away view

SLIDES IN "NEUTRAL"!
INSTANT ACTION!
GRIPS CONVENTIONALLY!
FULL POWER!

● Entirely new in principle, with patented fast slide action that speeds work, reduces operator fatigue, saves wear on parts. All the power of a heavy conventional vise (weighs 58 pounds). Jaw slides in "neutral" before you lock it by turning handle in conventional way. No tedious "spinning" in and out. No-Pinch handle protects against blood blisters. Every Dodge Slide-Set pays dividends in greater efficiency and production. *Write now for free Bulletin.*

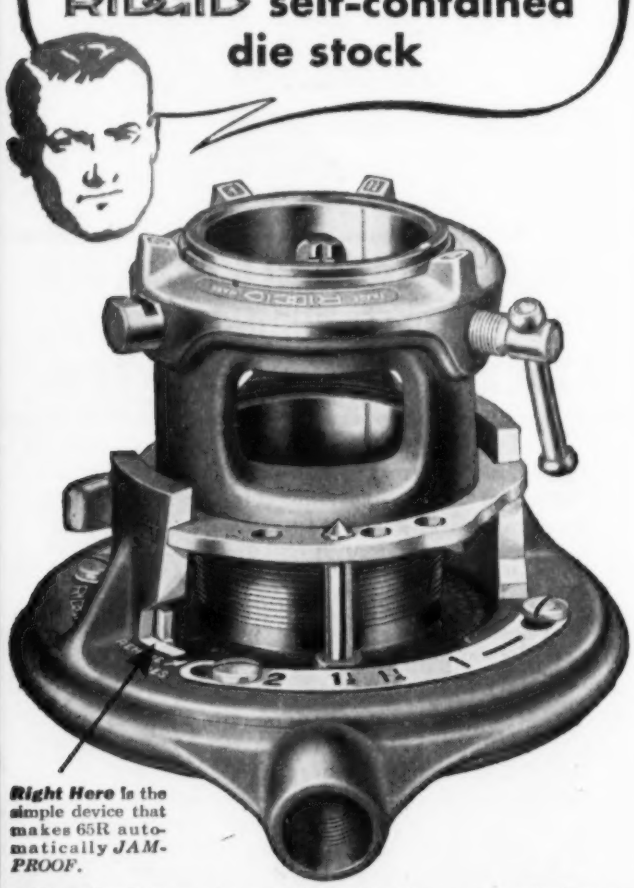
Dodge Manufacturing Corporation, 2100 Union St., Mishawaka, Indiana

DODGE of Mishawaka, Ind.

For more details circle **NED-8751** on enclosed inquiry slip

You can't jam the new RIDGID 65R

Really streamlined pipe threading with this RIDGID self-contained die stock



Right Here is the simple device that makes 65R automatically *JAM-PROOF.*

● You don't have to watch it—lead screw can't jam on workholder. New jam-proof drive plate automatically kicks out driving ratchet pawl when standard length thread is cut. Your recent model 65R easily converted—just buy new drive plate, put in place of old plate. Perfect threads on 1" to 2" pipe with one set of 4 high-speed steel dies—sets to pipe size in 10 seconds, mistake-proof self-centering workholder sets instantly! Buy the new jam-proof RIDGID 65R at your Supply House.

RIDGID Work-Saver Pipe Tools

THE RIDGE TOOL CO. • ELYRIA, OHIO

For more details circle **NED-8752** on enclosed inquiry slip

SHIPPING CASE SEALER
handles small corrugated cartons

Considerably shorter and narrower than present models, Junior case sealers are designed to handle smaller sizes of corrugated shipping containers. Use of flight chain construction virtually eliminates jamming of cartons. Machines are fully adjustable to handle wide range of carton sizes, and three models are available. Made by **A-B-C Packaging Machine Corp.**, P. O. Box 45, Quincy 4, Ill.

For more details circle **NED-8753** on enclosed inquiry slip

STRAIN GAGE
is of unbonded resistance wire type

Measurement of tensile and compressive strains in structural testing, experimental stress analysis and strength of materials research can be performed with this unbonded resistance wire strain gage. Instrument has knife edges for specimen engagement and incorporates two active bridge arms. Usable with standard strain indicators, this device can be used immediately upon attachment to specimen and can be used repeatedly without destruction. Made by **Statham Laboratories, Inc.**, Dept. A, 12401 W. Olympic Blvd., Los Angeles, Calif.

For more details circle **NED-8754** on enclosed inquiry slip

EXTERNAL HONE
for cylindrical and tapered surfaces

Special skill is not required to produce highly finished surfaces with geometric accuracy on all types of cylindrical and tapered parts with external hone. Chatter marks and cross pattern can be removed from tapered shanks, shafts, guide pins and bars, pistons and piston rods and other parts. Stone wear does not affect accuracy of job. Each of two hone sets have outside diameter ranges from ¼ to 3 in. Small body model FS2 is for shorter lengths than FL4. Any grit sizes are available in honing sticks. Work is chucked in any lathe, drill press or electric drill. Manual operation gives operator direct contact with hone body and feel of honing stones on work. Oiler attached to hone has fingertip control to regulate coolant flow. Made by **Universal Power Sprayer Co.**, 1951 Mathieu St., Plymouth, Mich.

For more details circle **NED-8755** on enclosed inquiry slip

How to Buy the Best Gloves for the Job... At Lowest Cost!

N-54 All milled DuPont neoprene Stanzoil, heavyweight. Non-slip fingers and palm. Curved or straight finger styles.

PIONEER Stanzoils®

Smart buyers find it doesn't pay to buy one kind of glove for several different jobs, even if it's cheap. What pays is good protection for workers' hands PLUS gloves that make work easier and faster. Fit gloves efficiently to the job for more production—and new PIONEER catalog shows you how. *Unbiased advice, for Stanzoils include all kinds of liquidtight gloves:* all-neoprene, neoprene or plastic coated, 32 styles, weights, sizes, colors. You profit from scientific glove selection—write for this helpful catalog today!

Industrial Glove Division

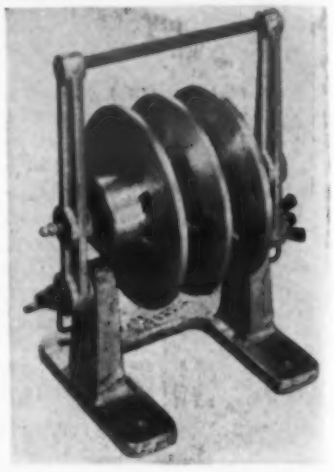
The PIONEER Rubber Company
634 Tiffin Road, Willard, Ohio • Los Angeles

STANZOIL PIONEER

OVER 30 Years OF QUALITY GLOVE MAKING

For more details circle **NED-8756** on enclosed inquiry slip

VARIABLE SPEED CONTROL



Variable speed control of V-belt and equipment up to a maximum 3 to 1 ratio is provided by this single lever controlled unit. Mechanically simple in design and sturdily constructed to withstand hardest service, models 1A and 2A Toledo variable speed controls have numerous unique features including: plain, smooth pulley, eliminating noise and vibration; stepless speed variation up to full 3 to 1 ratio; minimum pulley diameters are increased to transmit greater H. P. over entire range; new pulley design providing cylindrical bottom for V-belts which fixes minimum pitch diameters, preventing damage to belts and giving increased torque; single arm support, for easy belt application; large shaft, oilite bearings and lubricant reservoir; sector plate serving as dial indicator and additional locking medium; unusually attractive prices.

Wheel assemblies can also be purchased without mountings for application on machines providing built-in speed control.

If you have a variable speed control problem, either on plant equipment or on machinery you build for sale, investigate the Toledo variable speed control . . . you'll be interested in its efficiency and low price. Ratios as high as 10 to 1 are available. **The Toledo Timer Co.**, 2224 Albion St., Toledo, O. **Advt.**

For more details circle **NED-8757** on enclosed inquiry slip

Now! CONTROL AIR OPERATIONS ELECTRICALLY!

PUSH BUTTON OR LIMIT SWITCH CONTROL FOR

- AIR CYLINDERS
- AIR CIRCUITS
- AIR-OPERATED PRESSES

Quiet . . . dependable . . . economical. Unlimited range of applications. Ideal for remote control or for building into equipment. Two types. Ask for Hannifin recommendations.

GET BULLETIN 230

Contains specifications, dimension table, wiring diagrams and other useful data.

HANNIFIN

Hannifin Corporation • 1127 S. Kilbourn Ave., Chicago 24, Ill.

For more details circle **NED-8758** on enclosed inquiry slip

FASTER CLEANING AND SERVICING ON-THE-JOB!

IN LESS THAN A MINUTE—without the aid of tools—you can service a Hansen Tacker on-the-job!

Simply swing-out the Take-up Jaw, insert Channel Cleaner, and swing-in the Take-up Jaw (see pictures at left.) Only sixty seconds to service!

No jobs delayed; no waits for return from factory. Hansen *stays on the job!* Tacks faster! Works easier! Saves man-hours!

REQUEST BOOKLET!

A. L. HANSEN MFG. CO.
5164 Ravenswood Ave.
CHICAGO 40, ILL.

For more details circle **NED-8759** on enclosed inquiry slip

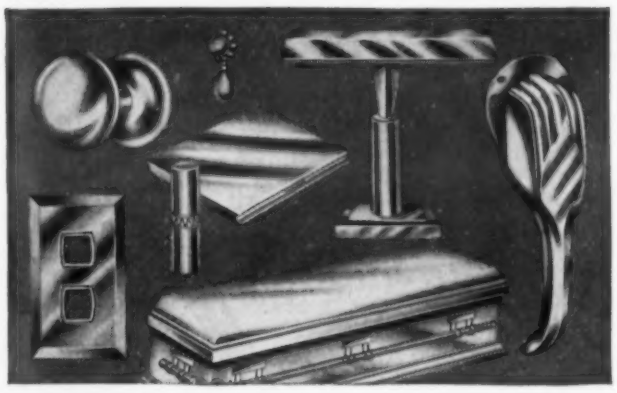
INDUSTRIAL INCINERATOR
consumes wet and dry materials

The WINNEN Incinerator consumes all types of industrial refuse and wet materials quickly and efficiently without smoke or disagreeable odor. It can be operated inside your plant or out of doors in accordance with your needs. Standard underfired model uses natural, manufactured or bottled gas. Intense, hot flame quickly dries out refuse and burns it completely. When used indoors, integral blower assembly eliminates smoke or odor. An overfired burner is available for operation in congested areas where smoke elimination is important. This speeds burning, assures complete combustion and prevents odors. Approved by Smoke Abatement Committees of many cities.

The WINNEN Incinerator with oversized feeder doors can be loaded, fired and left safely for night operation when plant is vacant.

If you have a refuse removal problem, the WINNEN Incinerator offers you a practical, sanitary and economical solution. Write for full information to the **Winnen Incinerator Co.** 932-A Broadway, Bedford, O. *Advt.*

▲ For more details circle **NED-8760** on enclosed inquiry slip ▲



NOW...simulate copper, brass, bronze with M&W PLATELUSTRE

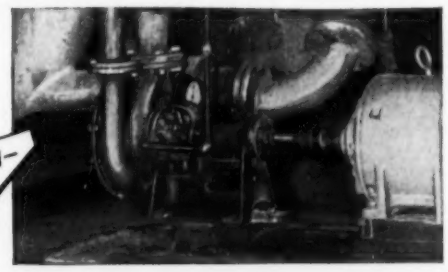
Apply a coating of the new PLATELUSTRE finishes to zinc or steel—and you wind up with products closely resembling copper, brass or bronze. Whether you have been using copper and its alloys for *making* products or for *plating* them, these finishes will help solve your problem.

Air-drying and baking types. Ask for free literature—or have an M & W Technical Service Engineer demonstrate PLATELUSTRE right in your own plant.

PIONEERS IN PROTECTION

MAAS & WALDSTEIN CO. 430 RIVERSIDE AVE. NEWARK 4, N. J.
MID-WEST DIV.-1658 CARROLL AVE., CHICAGO 12, ILLINOIS
PACIFIC COAST DIV.-SMITH-DAVIS CO., 10751 VENICE BLVD., LOS ANGELES 34, CAL.
MANUFACTURERS OF INDUSTRIAL FINISHES

▲ For more details circle **NED-8761** on enclosed inquiry slip ▲



HOW A MANUFACTURER CUT COSTS WITH GOULDS STAINLESS STEEL PUMPS

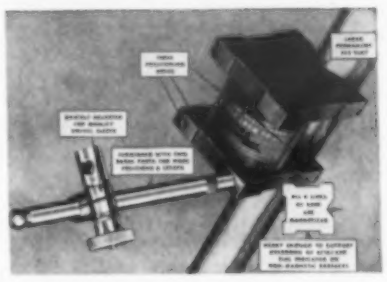
Here's how an alert manufacturer cut his pumping costs by ¾. The pumps he had handling a highly corrosive liquid cost $3250. When they wore out, he replaced them with Goulds Stainless Steel Centrifugals for $826. The Goulds pumps have already lasted twice as long . . . and they're still going strong. Advanced design, simple construction, and extra-protected, interchangeable parts make these savings possible. For complete information write Pump Headquarters, Seneca Falls, N. Y. Ask for Bulletin 725.3.

MEMBER

Goulds PUMPS INC. Seneca Falls New York

▲ For more details circle **NED-8762** on enclosed inquiry slip ▲

MAGNETIC BASE
for use with dial indicators



Alnico permanent magnet incorporated in Minute Man magnetic base for dial indicator gages provides 40 to 50-lb grip on all four sides. Heavy base precludes possibility of tipping over when placed on nonmagnetic surfaces and thereby damaging delicate indicators. Base has V-slot for positioning on cylindrical surfaces. Two interchangeable brass attachment shafts of 7/32 and 5/16-in. diameter and quick-adjustable swivel sleeve for placement of indicator for easy reading are standard. Three shaft positioning holes in base offer range of indicator positions. Made by **du Mont Corp.**, 38 Beacon St., Greenfield, Mass.

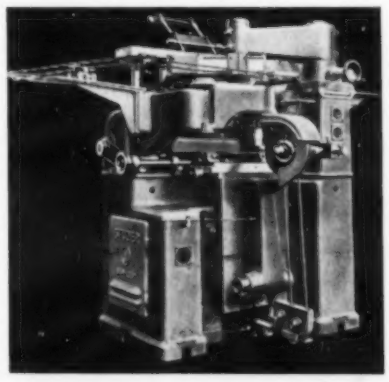
▲ For more details circle **NED-8763** on enclosed inquiry slip ▲

CHANGEABLE LETTER SIGN
neon type offered in five colors

Message presented on this interchangeable neon letter sign can be changed in short time, letters plugging into sockets like radio tubes. Letters are available in five colors for use on single or double tiered platform. All letters, numbers, various symbols and special shapes are available. Unit plugs into any 110-v ac circuit. Made by **Neco Mfg. Co.**, Auburn, Ind.

▲ For more details circle **NED-8764** on enclosed inquiry slip ▲

PROFILE GRINDER
grinds to plus or minus 0.0002 in.



Capacity of this machine made by Fritz Studer Ltd., Switzerland, permits grinding profiles of punch and draw dies up to 12 in. long on one setting, flat work pieces up to 4⅜ in. thick and round pieces in diameters up to 10 in. Pantograph is adjustable from 1:1 to 1:10 ratio. Depending on accuracy of templates, profiles can be machined to tolerance of plus or minus 0.0002-in. Automatic guide attachment for guiding tracer along template is also available. This uniform feeding produces improved surface finishes and increases life of grinding wheels. Loosening two screws of attachment permits guiding tracer by hand. Distributed by **Cosa Corp.**, 616-624 Chrysler Bldg., New York 17, N. Y.

▲ For more details circle **NED-8765** on enclosed inquiry slip ▲

SAFETY EQUIPMENT FOR ALL INDUSTRIES

IPCO LAMP CHANGERS

PRACTICAL • TIME SAVING • PREVENTS PERSONAL INJURIES

FOR CEILINGS, SIDE WALLS, ELECTRIC SIGNS, ETC. • HEAD ADJUSTS TO ANY ANGLE

Designed to remove and replace lamp bulbs in high and out of way places . . . Works like human hands on the end of a pole . . . Handles lamps up to 500 watt; pole lengths 6', 12' and 18'.

Write for Bulletin LA-111

IPCO *Safety Equipment for all Industries*
INDUSTRIAL PRODUCTS COMPANY
2807 N. FOURTH STREET · PHILADELPHIA 33, PA.

▲ For more details circle **NED-8766** on enclosed inquiry slip ▲

SAFELY EQUIPPED...for light metals

The ROTO-CLONE Type N Bench eliminates hazards of magnesium dust in finishing operations. Developed by AAF engineers for this purpose, the Type N has no moving parts yet maintains highest efficiency in collecting extreme fines.

The Type N ROTO-CLONE stores dust under water for complete safety. Available in sizes and arrangements to meet any requirements. If you are finishing magnesium, call your nearby AAF representative or write for Engineering Bulletin No. 277A.

AAF American Air Filter COMPANY, INC.
391 Central Avenue, Louisville 8, Ky.
In Canada: Darling Bros., Ltd., Montreal, P. Q.

▲ For more details circle **NED-8767** on enclosed inquiry slip ▲

PERMACEL News Graphic

CUTTING COSTS...SPEEDING PRODUCTION WITH INDUSTRIAL TAPES

PAN AMERICAN WORLD AIRWAYS SYSTEM speeds maintenance with **PERMACEL** Tapes. **PERMACEL-77** protects air scoop and propeller shaft. **PERMACEL-66** protects fuel and hydraulic lines.

WATERPROOFING AND WEATHERPROOFING jobs on Silver Fleet trucks call for **PERMACEL-68**, a flexible, plastic-coated cloth tape with high tensile strength, extremely good adhesion. Meets Government standards.

FREE!
JUST OFF THE PRESS

New 32-page use book. Send for your copy today. Over 100 close-up photographs of new and dollar-saving uses of tape. Write Dept. 5N.

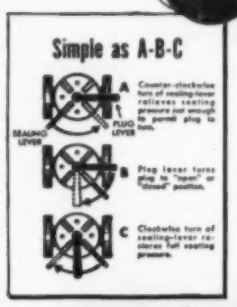
INDUSTRIAL TAPE CORP., NEW BRUNSWICK, N. J.
NAME ..... PLEASE PRINT
TITLE .....
COMPANY .....
ADDRESS ..... STATE .....
CITY .....

Permacel INDUSTRIAL TAPES
INDUSTRIAL TAPE CORPORATION, NEW BRUNSWICK, N. J.
makers of ®TEXCEL Cellophane Tape, and a complete line of pressure-sensitive tapes for industry.

▲ For more details circle **NED-8768** on enclosed inquiry slip ▲

• at all times • under all conditions
• throughout its long lifetime of service

Simple as A-B-C



Homestead Lever-Seald Valves operate faster, too—16 to 28 times faster than screw-stem type valves. They require no lubrication . . . provide unobstructed, straight-line fluid flow with minimum pressure drop . . . afford maximum protection to sealing surfaces against corrosive and erosive line fluids. And because only a quarter-turn is needed for full opening or closing, they are ideal for installation in restricted areas where operation of other types of valves might be difficult.

Next time you have damaged or sticking valves, replace them with Homestead Lever-Seald Plug Valves. Once you use them you'll never be satisfied with ordinary valves.

For complete information write for Valve Reference Book No. 29-2.

HOMESTEAD LEVER-SEALD PLUG VALVES

HOMESTEAD VALVE MANUFACTURING COMPANY
Serving since 1902

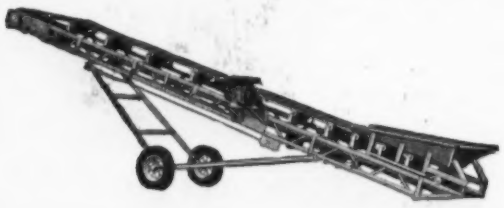
P.O. BOX 84 CORAOPOLIS, PA.

▲ For more details circle **NED-8769** on enclosed inquiry slip ▲

Delivered **PROMPTLY**

A typical installation of Sectional Conveyor assemblies "Job-Fitted" to the efficient operation of this aggregate plant.

Today three major factors must be considered in the purchase of material handling equipment—performance, price and **delivery.** Baughman Sectional Hi Speed Job-Fitted Conveyor assemblies are built to meet these specifications. Each Baughman Sectional Conveyor is engineered, thoroughly tested and load rated, insuring satisfaction in every installation. Through quantity production of Sectional Conveyor Assemblies it is possible to stock basic units, which insure prompt delivery at lower cost.



The same sectional assemblies and job fittedness is available in portable and permanent Baughman Conveyors. Speedy quotation, prompt delivery and shipment in most cases from stock, allow Baughman to offer immediate action to your inquiry.

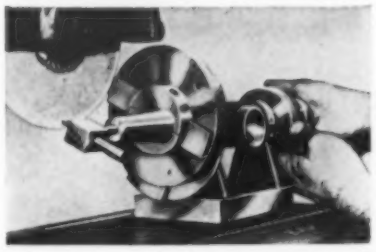
Write for Free Catalog #A-57 or contact your nearest Baughman Industrial Distributor.

manufactured by
BAUGHMAN MANUFACTURING CO. Inc.

173 E. ARCH STREET JERSEYVILLE, ILL.

▲ For more details circle **NED-8770** on enclosed inquiry slip ▲

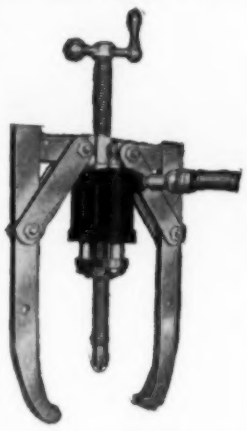
WHEEL DRESSER
mounts on magnetic chuck



Precision built **Last Word** wheel dresser, when mounted on magnetic chuck, can accurately dress any radius, concave or convex with angles tangent to radius. It can also be used for plain radius or angle dressing or any combination. Set up of diamond head is rapid, and angle stops are incorporated for accurate control of radius and tangent relationship. Dresser does not require center mounted diamonds and permits dressing below wheel for use of guard and dust collector. Made by **Last Word Sales Co.,** 18502 Mt. Elliott Ave., Detroit 34, Mich.

▲ For more details circle **NED-8771** on enclosed inquiry slip ▲

HYDRAULIC PULLER CONVERTER
ram attaches to standard pullers



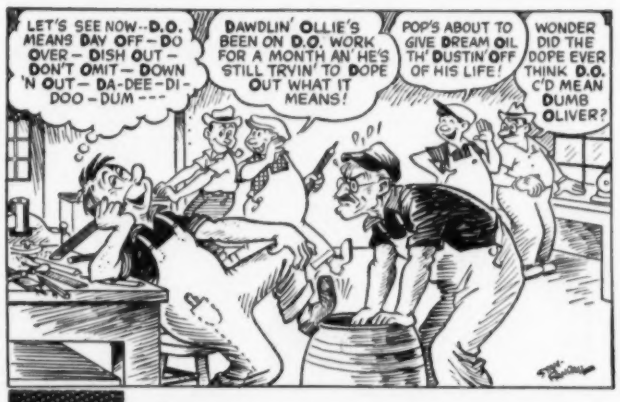
Only slight changes are necessary to change No. 1003L, 1003½ and 1003½-L OTC Grip-O-Matic pullers to hydraulic power, making them more efficient and increasing utility range. Power-Twin hydraulic puller attachment eliminates torque, minimizes work and is safely operated because of remote control feature. Separate pump supplies pressure. Hydraulic ram can be quickly detached from puller and used on OTC Push-Pullers or on bench or pedestal press. Made by **Owatonna Tool Co.,** 436 Cedar St., Owatonna, Minn.

▲ For more details circle **NED-8772** on enclosed inquiry slip ▲

PHOTOCOPYING PRINTERS
make 30 x 42, 42 x 60-in. copies

Single set of white lamps in improved Vacuum Seal Portagraph contact printer for photocopying provides all varying degrees of light intensity required in contact printing. Printer is offered with 30 x 42 and 42 x 60-in. copying surfaces, both finished in American walnut. Rheostat control furnishes required lighting intensity. One light on instrument panel illuminates timer dial, while another is for inspecting vacuum gage reading. Made by **Remington Rand Inc.,** Dept. NED, 315 Fourth Ave., New York 10, N. Y.

▲ For more details circle **NED-8773** on enclosed inquiry slip ▲



Only a cluck like Oliver would fail to understand that D.O. means Defense Order...and that this is no time to let antiquated methods or low-grade tools slow up production.

Filing operations. They represent production and assembly processes where poor results and untold man-hour losses can be incurred through the use of quick-dulling files of low-quality steel, haphazard cut and unscientific hardening.

Nicholson testing laboratories have proved in unbiased comparisons that the difference in file costs is a mere "drop in the bucket" compared to the cost of labor *saved* with top Nicholson brands.

Sold through industrial distributors under the Nicholson policy of *Twelve perfect files in every dozen.* **FREE** 48-page book, "FILE FILOSOPHY," on kinds, use and care of files.

NICHOLSON FILE CO., 34 Acorn St., Providence 1, R. I.
(In Canada, Port Hope, Ont.)

NICHOLSON U.S.A. NICHOLSON *A FILE FOR EVERY PURPOSE* BLACK DIAMOND TRADE MARK

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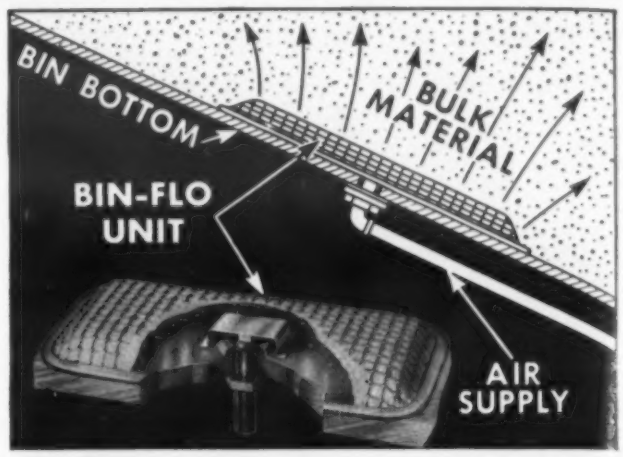

BIN-FLO
USES SMALL VOLUME OF AIR AT LOW PRESSURE

KEEPS BULK MATERIALS MOVING

BIN-FLO units in bins, chutes, hoppers, etc., restore flow characteristics to dry, finely ground materials which tend to pack or bridge in storage. Types for all materials and conditions. No moving parts; simple installation; negligible operating cost; no maintenance cost.

BIN-DICATOR bin level indicator—"The Eyes of the Bin"—automatically reports levels of materials in storage; automatically controls filling machines; prevents waste.

NEW 20-PAGE BOOK FREE

THE BIN-DICATOR CO.
13946-A Kercheval • Detroit 15, Mich.

▲ For more details circle **NED-8775** on enclosed inquiry slip ▲

For Faster Assemblies
use a
"YANKEE"
Quick-Return Spiral
Screw Driver

Quick-Return Style
Nos. 130A, 131A, 135
Standard Style
(without Quick Return Spring).
Nos. 30A, 31A, 35

A push on the handle and the screw is off to a spinning start! Up with the arm and the driver is ready for the next push. Constant spring pressure keeps the bit in the screw slot. This quick-return feature of the "Yankee" Spiral Screw Driver helps one hand do the work of two, easier and faster.

Ask your Industrial Supply Distributor about these and other "Yankee" Tools that put an extra push into every job.

Write today for the "Yankee" Tool Book

"YANKEE" TOOLS NOW PART OF STANLEY THE TOOL BOX OF THE WORLD

NORTH BROS. MFG. CO.
Philadelphia 33, Pa.

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Let this all-purpose
DEWALT
save money in Your plant

Here is the ideal, all-purpose machine you need to cut costs and step up production in your plant. DeWalt is *many* machines in one! It dadoes, routs, shapes, tenons, grinds, sands, etc.! It's fast, accurate, safe, dependable. It takes up little floor space—and streamlines all your cutting operations. Write for catalog. DeWalt, Inc., Dept. NE-11, Fountain Ave., Lancaster, Pa.

DEWALT INC.
A subsidiary of American Machine and Foundry Co.

▲ For more details circle **NED-8777** on enclosed inquiry slip ▲

SLY "ECONOMY" DUST FILTERS
Small, Compact, Inexpensive

The Sly ECONOMY Dust Filter is especially suited for collecting the dust from individual machines or from a small group of dust points in close proximity to each other. It is compact yet it has an abundance of filter cloth which helps to maintain a uniform suction.

This filter offers: (1) *High Efficiency* with complete dust collection; (2) *Low Power,* a 3 HP motor will handle 1400 cu. ft. per minute; (3) *Long Life* because a very liberal amount of filter cloth is used; (4) *Compactness* because the filter cloth occupies a minimum of space; (5) *Effective Bag Cleaning* by means of a simple shaking device.

Made in four standard sizes, to filter dust out of 300 to 1400 cu. ft. air per minute. Write **The W. W. Sly Manufacturing Co.,** 4748 Train Avenue, Cleveland 2, Ohio. There are experienced Sly engineers in New York, Chicago, St. Louis, Philadelphia, Minneapolis, Birmingham, Cincinnati, Lansing, Los Angeles, Rochester, Toronto. Advt.

▲ For more details circle **NED-8778** on enclosed inquiry slip ▲

Oxweld

PORTABLE FLAME-CUTTING MACHINES FILL A VARIETY OF SHOP REQUIREMENTS

This Oxweld CM-16 is designed for oxy-acetylene flame-cutting of steel plate up to 4 inches thick. It travels directly on the work and cuts circles automatically—hand-guided, it cuts irregular shapes. Operated on track this machine cuts straight lines. Adaptors are available for straight-line cutting on thick steel or for beveling. The CM-16 weighs only 45 pounds and is low in price. Write for catalog, Form 4487.

LINDE AIR PRODUCTS COMPANY
A DIVISION OF UNION CARBIDE AND CARBON CORPORATION
30 East 42nd Street UCC New York 17, N. Y.
In Canada: Dominion Oxygen Company, Limited, Toronto

▲ For more details circle **NED-8779** on enclosed inquiry slip ▲

Link-Belt CAR SPOTTER releases manpower for other jobs

Get faster car spotting

Reduce switching and demurrage time to a minimum. One man with two or three turns of rope around the motor-driven capstan will handle up to six loaded railroad cars. Available with 5 or 10 hp, integral or separate motors, stationary or portable.

Link-Belt offers a complete line of car spotters . . . also specializes in drum type puller applications.

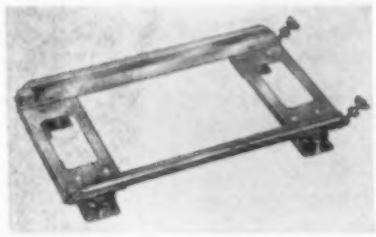
12,385-C

WRITE TODAY
For 16 Page Bulletin 1992-A

LINK-BELT COMPANY:
Chicago 8, Indianapolis 6, Philadelphia 40, Atlanta, Houston 1, Minneapolis 5, San Francisco 24, Los Angeles 33, Seattle 4, Toronto 8, Springs (South Africa). Offices, Factory Branch Stores and Distributors in Principal cities.

▲ For more details circle **NED-8780** on enclosed inquiry slip ▲

VIBRATION ISOLATORS
mounting bases support over 50 lb



Constructed to withstand crash and aircraft carrier arrested landings, Barrymount vibration isolators and mounting bases meet shock-test requirements of specification AN-E-19 for equipment sizes listed in JAN-C-172A. Isolators cover load ranges between ¼ and 40 lb per unit mount, and are interchangeable with isolators now in use. They are available in both air-damped and All-Metl types. Mounting bases equipped with isolators are available in standard JAN and special sizes, in aluminum for loads up to 50 lb and in stainless steel for greater loads. Made by **Barry Corp.,** 852 Pleasant St., Watertown 72, Mass.

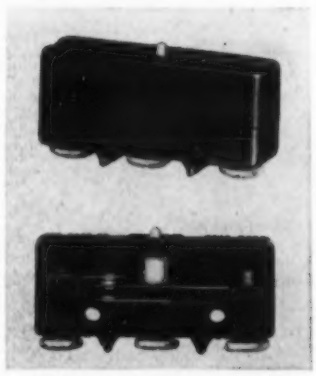
▲ For more details circle **NED-8781** on enclosed inquiry slip ▲

DRUM SANDER & SLEEVES
fit drills or flexible shafts

Line of expanding-type drum sanders and sleeves is now available in ½ to 2-in. diameter sizes, all of which can be had in coarse or fine grits. Line includes 15-piece kit containing five assorted sanding drums of ½, ¾, 1, 1½ and 2-in. sizes and 10 sleeves with one coarse and one fine grit for each drum. Drums fit any electric drill, drill press or flexible shaft with ¼-in. or larger chuck and can be used on wood or steel. Made by **Fil-Mar Products Co.,** Dept. NED-1, 1136 Orlando Ave., Akron 20, O.

▲ For more details circle **NED-8782** on enclosed inquiry slip ▲

DIRECT-ACTING SWITCH
makes instantaneous contact



Delayed contact operation is eliminated in compact, lightweight du. op direct-acting switch because instantaneous contact is made at same fixed point of repetitive plunger travel. Centrally-located plunger permits easy cam design and acts directly on spring to insure contact transfer with maximum spring pressure. Solid metal contact blades are directly riveted to terminals and are arranged single-pole, double-throw and spring-return for handling up to 20-amp, 125-v ac, noninductive. Switch is enclosed in compact phenolic-molded housing with 1-in. mounting dimension. Made by **General Control Co.,** 1211 Soldiers Field Rd., Boston 34, Mass.

▲ For more details circle **NED-8783** on enclosed inquiry slip ▲

Save Time . . . Labor . . . Material
with BEVERLY metal cutting SHEARS

throatless SHEARS

Make any cut—straight, irregular, curved. Exclusive design permits turning work any direction while cutting. 4 models—cap. to 3/16".

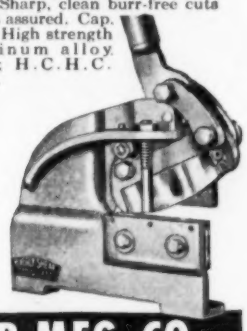
Inside SLOTTER

Makes cuts up to 8" inside edge of sheet. Sharp, clean burr-free cuts always assured. Cap. 16 ga. High strength aluminum alloy body; H.C.H.C. blades.

slitting SHEAR

New "SS" Series—easier cutting with compounded linkage. 3 models—cap. to 3/16", trimming capacity to 1/16" mild.

See your Beverly Distributor. Write for FREE illustrated Bulletin.



Beverly SHEAR MFG. CO.
3016 W. 111th STREET • CHICAGO 43, ILLINOIS

▲ For more details circle **NED-8784** on enclosed inquiry slip ▲

GRIPPING FORCE 15 TIMES AIR LINE PRESSURE

Speedy Air Vise helps you do dozens of operations faster, better, cheaper—by air pressure! Foot control valve opens and shuts vise instantly, leaving *both* hands free to produce *more!* Jaw opens up to 3 inches, holds castings, parts, jigs, etc. Compact and trouble-free.

Complete with Foot Control, Air Hose and Fittings.....only **$29.90**

Prompt Delivery from Your Supplier or Write Direct

W. R. BROWN CORPORATION • 2647 N. Normandy Ave. • Chicago 35, Ill.

AIR REGULATORS • AIR FILTERS • AIR GUNS • PORTABLE COMPRESSORS

▲ For more details circle **NED-8785** on enclosed inquiry slip ▲

BASIC FACTS ABOUT MODERN MATERIALS HANDLING

HOW IT WORKS — WHAT IT DOES — WHAT IT SAVES

Study of major importance to business and industry is made available by CLARK

A practical, profitable way to produce more goods with the same amount of human effort, is presented simply and graphically in a new booklet offered by the Industrial Truck Division of the Clark Equipment Company, of Battle Creek, Michigan.

This booklet points up technological advances in materials handling operations that are effecting extraordinary benefits for industry—such as faster production, increased economy and efficiency, improved human relations, lower accident and damage rates, quickened distribution and substantial cash savings. Simply and directly it describes tested and proved means to help speed up and perfect the imperative integration of a military and a civilian economy.

2-BILLION SAVING POSSIBLE—Concretely, this study points up a quick and certain way for Industry to save some $2,000,000,000* annually at a time when the country, faced with a rearmament program of 50 billions a year for at least three years, is in desperate need of every possible mechanical aid to save time and speed production. Many advantages in other directions, not reckoned in dollars and cents, will be recognized at once by every reader.

This new CLARK study is neither fancy nor complex. It is a well-illustrated, simply-written exposition of the sound and sensible fundamentals on which modern materials handling techniques and practices are based. It describes ways and means of getting the most out of fork-lift trucks, powered hand trucks and industrial towing tractors, at the least possible cost. For the many businesses which have not yet adopted modern handling methods and machines, the booklet will be found invaluable. For the thousands of progressive businesses already employing modern methods and machines, it is just as valuable as a check against omissions, abuses and opportunities for full achievement of production goals and potentials.

SEND FOR YOUR COPY

To get a copy of "*Basic Facts About Materials Handling,*" fill out the coupon, attach it to your business letterhead and mail it to the *Clark Equipment Company, Industrial Truck Division, Battle Creek, Michigan.* If you want additional copies for key personnel, they are available in reasonable quantities.

**Materials Handling Case Book; McGraw-Hill Book Co., Inc., 1951*

CLARK ELECTRIC AND GAS POWERED **FORK TRUCKS**
AND POWERED HAND TRUCKS • INDUSTRIAL TOWING TRACTORS

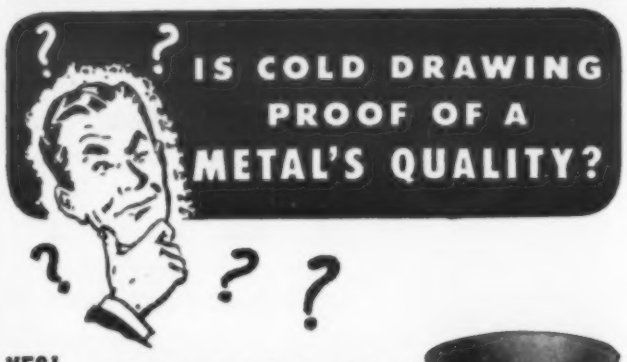
INDUSTRIAL TRUCK DIVISION • CLARK EQUIPMENT COMPANY • BATTLE CREEK 21, MICHIGAN

Please send the following: ☐ BASIC FACTS ☐ CONDENSED CATALOG ☐ SAFETY SAVES ☐ MOVIE DIGEST

Name _____
Firm Name _____
Street _____
City _____ Zone ____ State _____

AUTHORIZED CLARK INDUSTRIAL TRUCK PARTS AND SERVICE STATIONS IN STRATEGIC LOCATIONS

▲ For more details circle **NED-8786** on enclosed inquiry slip ▲



YES! Cold drawing is in itself certain proof of the quality of a metal. Unless it is perfectly homogeneous, without blisters, laminations or surface defects, it will break down under the drawing operation.

What's more, a Hackney Cold Drawn Shape or Shell is made by specialists in cold drawing. For more than 45 years Pressed Steel Tank Company has been giving customers such exclusive advantages as: decreased overall weight, greater strength, faster production, greater durability, improved appearance and lower costs. If you would like further details on Hackney Shapes and Shells, write us.

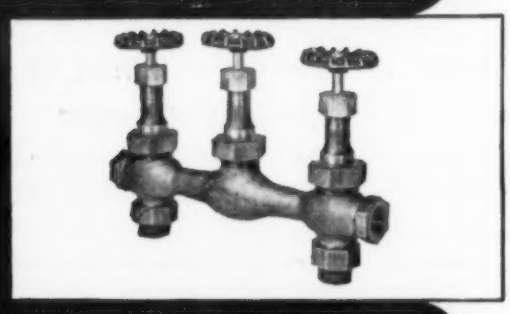
Typical example of Hackney Cold drawing—a special tapered shell, 22" dia., at open end, 16" high. Used as part of centrifugal separator.

PRESSED STEEL TANK COMPANY
Manufacturers of Hackney Products
Main Office and Plant: 1450 S. 66th St., Milwaukee 14
1324 Vanderbilt Concourse Bldg., New York 17 ● 255 Hanna Bldg., Cleveland 15 ● 936 W. Peachtree St., N.W., Room 136, Atlanta 3 ● 208 S. LaSalle St., Room 779, Chicago 4 ● 578 Roosevelt Bldg., Los Angeles 14

CONTAINERS FOR GASES, LIQUIDS AND SOLIDS

For more details circle NED-8787 on enclosed inquiry slip

The Compactness of HONEYWELL BY-PASSES



will simplify your piping

The Honeywell By-Pass is a compact, neat, easily-installed means of by-passing control valves, traps and other pressure units. It simplifies piping arrangements by eliminating a multitude of joints, nipples and elbows . . . by using a minimum of space . . . by saving time . . . by minimizing maintenance.

Available in Bronze as follows: sizes ½ to 2 inches . . . Bronze or Stainless trim . . . union bonnet . . . screwed ends . . . 150-300 lbs. . . . from $21 to $116. Available in Cast Steel as follows: 1 to 2 inches . . . union bonnet for 1" and 1¼", bolted bonnet for 1½" and 2" . . . Stainless trim . . . screwed or flanged ends . . . 300-600 lbs. . . . from $228 to $426. Send in your order, today!

MINNEAPOLIS-HONEYWELL REGULATOR CO., *Industrial Division,* 1912 Windrim Ave., Philadelphia 44, Pa. Offices in more than 80 principal cities of the United States, Canada and throughout the world.

Honeywell VALVE PRODUCTS

For more details circle NED-8788 on enclosed inquiry slip

A NEW BOOK TO HELP YOU CUT COSTS

Our new booklet on Rex Stock Sprockets gives you all the details on how these sprockets will add life to your chain drives. Cast in either highest quality gray iron or long wearing Rex Temperim, there is a correct Rex Sprocket for every chain in our complete line.

The booklet includes complete specifications, prices and ordering information. Send for it today, using coupon below.

REX CHAINS and SPROCKETS

CHAIN BELT COMPANY 50-111
1686 W. Bruce Street, Milwaukee 4, Wis.
Gentlemen:
Please send me a copy of Bulletin No. 49-30.

Name.....
Company.....Dept.....
Address.....
City.....State.....

For more details circle NED-8789 on enclosed inquiry slip

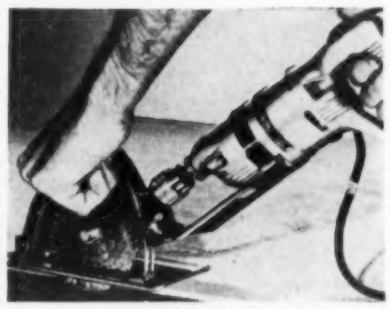
MOISTURE CONTENT STABILIZER for low hydrogen electrodes

Absorption of sufficient moisture from air to exceed allowable limits and therefore destroy low hydrogen quality of welding electrodes is prevented by Blueweld Lo-Hydrogen electrode moisture stabilizer which stores 400 lb of electrodes. Because of its size and compact design, unit can be located at any point convenient to welding operation. It protects electrodes from atmospheric conditions from time they are removed from package until they are put into use. Made by **Fred C. Archer, Inc.,** 606 W. Wisconsin Ave., Milwaukee 3, Wis.

For more details circle NED-8790 on enclosed inquiry slip

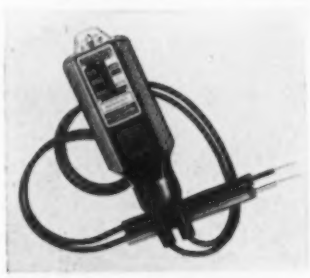
DRILL & SAW KIT includes ¼-in. electric drill

Saw attachment for model F-149 ¼-in. electric drill has cutting depth from 0 to 1-3/16 in. and bevel adjustment to 45 degrees. Saw bearing alignment, gear ratio, wide sole plate and mounting insure smooth action and long service. Drill and saw kit consists of electric drill, seven high speed twist drills and saw attachment in fitted metal carrying case. Made by **Fairchild Industries, Inc.,** 110-N Main St., Burlington, Vt.



For more details circle NED-8791 on enclosed inquiry slip

VOLTAGE TESTER parts interchange with other models



Redesigned Wigginton voltage tester has high dielectric, one-piece molded case with slotted receptacle on each side providing test mount for either prod. Prods can be inserted in bottom of receptacle to shield sharp points for safe carrying in pocket or case. Various prod mounting arrangements permit direct probing with both hands, line-to-ground and similar tests with one hand and overhead testing. Prods have 4-in. fiber insulators and hardened flat insulated steel points to pierce insulation. Magnetic cap provides for direct current polarity checks. Voltage range covers 110-220-440-550 v ac and 125-250-600 v dc, and testers are available for low voltage and 400-cycle systems. Operating parts are interchangeable with previous Wigginton testers. Made by **Square D Co.,** 6060 Rivard St., Detroit 11, Mich.

For more details circle NED-8792 on enclosed inquiry slip

TEMPILSTIKS°

the amazing Crayons that tell temperatures

in
WELDING
FLAME-CUTTING
TEMPERING
FORGING
CASTING
MOLDING
DRAWING
STRAIGHTENING
HEAT-TREATING
IN GENERAL

$2 each
gives up to 2000 readings

it's this simple:
- Select the Tempilstik° for your working temperature.
- Mark your workpiece with it.
- The Tempilstik° will leave a liquid mark as soon as its specified temperature is reached.

Available in these temperatures (°F)

113	213	313	450	850	1250	1650
125	225	325	500	900	1300	1700
138	238	338	550	950	1350	1750
150	250	350	600	1000	1400	1800
163	263	363	650	1050	1450	1850
175	275	375	700	1100	1500	1900
188	288	388	750	1150	1550	1950
200	300	400	800	1200	1600	2000

Also available in pellet and liquid form.

TEMPIL CORPORATION
132 W. 22nd St., New York 11, N. Y.

FREE—Tempil° "Basic Guide to Ferrous Metallurgy" —16¼" by 21" plastic-laminated wall chart in color. Send for sample pellets, stating temperature of interest to you.

NAME _____
COMPANY _____
ADDRESS _____

Booth C-117-National Metals Show Detroit, October 15-19.

For more details circle NED-8793 on enclosed inquiry slip

MICO ENGRAVERS
For Metal, Plastic, Glass or Wood

Cat. No. 252

For engraving nameplates, panels; machined parts or 3-dimensional reproduction of dies and molds.

Cat. No. 253

For engraving large panels and instruments. Will take work up to 19" wide by 19" high and any length. Larger areas can be accommodated by placing pantograph and yoke directly on work.

4 Reduction Ratios, 1.5:1 to 4:1
Ball-bearing Spindle with Micrometer Adjustment

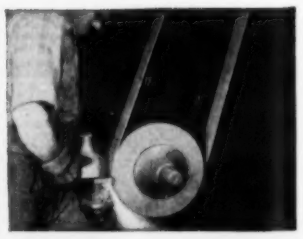
Send for Illustrated Catalogue

MICO INSTRUMENT COMPANY
80D Trowbridge Street
Cambridge 38, Mass.

For more details circle NED-8794 on enclosed inquiry slip

New "61" CONTACT WHEEL by CARBORUNDUM TRADE MARK

...improves Belt Performance!



You, too, can expect and get better performance plus up to twice the life from abrasive belts by CARBORUNDUM. Only one simple change in your present method is required. Use your same backstand grinder and abrasive belt, but install a serrated "61" Contact Wheel by CARBORUNDUM at the "business" end.

CARBORUNDUM's new "61" Contact Wheel provides higher rates of stock removal, extends productive life on the belt, as well. Belt glazing is virtually eliminated. Your CARBORUNDUM representative will give you full details, and will be glad to arrange an impartial production test.

Only **CARBORUNDUM** TRADE MARK

makes **ALL** *abrasive products*
...to give you the proper **ONE**

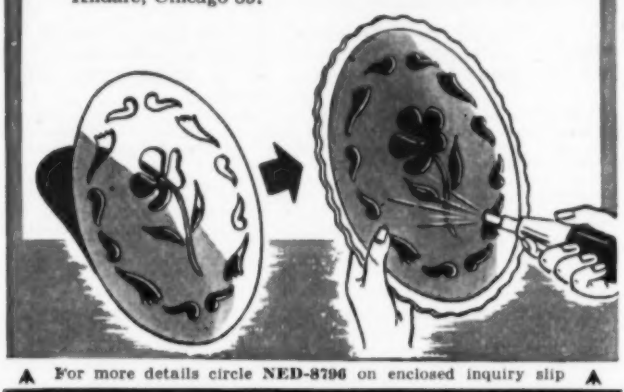
"Carborundum" is a registered trademark which indicates manufacture by The Carborundum Company, Niagara Falls, N.Y.

For more details circle NED-8795 on enclosed inquiry slip

MYSTIK Sand Blast

More Accurate, Faster, Lower Cost

A self-stik masking material for sandblasting designs, decorations, lettering, trademarks on glass, mirrors, metals, ceramics, plastics, showcases, etc. Stands heavy blasting up to ¼" in depth. Simply press Sand Blast stencil in place, remove stencil ties for unbroken letters. May be die-cut to any required design. Perfect accuracy with production line speed. Available die-cut or in rolls of blank stock up to 36" x 30 yards inclusive, also in sheets. Write for information and free samples. Mystik Adhesive Products, 2657 N. Kildare, Chicago 39.



For more details circle **NED-8796** on enclosed inquiry slip

Kester Solder

Kester engineers, with over 100,000 different types and sizes of solder available, will specify the right flux-core solder for the job.

Easier to Use

Using the most suitable solder for each operation will enable solderers to work at top speed without sacrificing quality. No rejects.

Top Quality

Only the finest grades of tin and lead commercially available used. Fluxes—chemically correct.

KESTER SOLDER COMPANY
4201 Wrightwood Ave., Chicago 39
Newark, N. J. • Brantford, Canada

KESTER SOLDER

SEND FOR FREE MANUAL, "SOLDER and Soldering Technique"

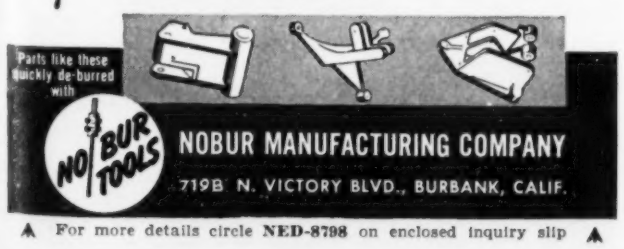
For more details circle **NED-8797** on enclosed inquiry slip

Machine de-burring with NOBUR pays BIG production dividends!

NOBUR Tools *turn a slow bench operation into fast and efficient machine work!* Remove burrs on multi-walled parts with a smooth, clean cutting action that won't mar highly finished surfaces. Eliminate rejects from slow, costly hand work with files, scrapers and abrasives.

Nobur Tools are used on any lathe, drill press, portable drill or flexible shaft. Operation of the double-edge cutting blade is easy and safe . . . no skilled help is required, and the spindle *never needs to be stopped* for either de-burring or chamfering.

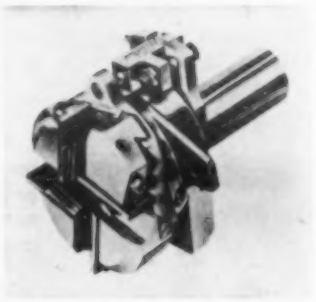
Nobur Tools cut freely on either hard or soft metals, are simple in construction and are made in sizes to cover a full range of hole diameters. ***NEW "DS" SERIES extends range of NOBUR applications to holes as small as ⅛" diameter. WRITE FOR FULL DETAILS TODAY!**



NOBUR MANUFACTURING COMPANY
719B N. VICTORY BLVD., BURBANK, CALIF.

For more details circle **NED-8798** on enclosed inquiry slip

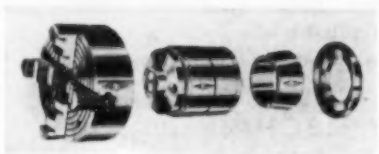
DIE HEADS produce class III threads



Specifically engineered to meet Brown & Sharpe requirements for automatics and small turret lathes, line of die heads covers range from No. 0 to 1¼ maximum. Features include: both radial and tangent chasers mounted on face of die for free coolant flow and good chip clearance; Dualife insert chasers for No. 00 machine dies, allowing turning and using on other side; permanent throat features on two-thirds of line; cushion springs for easy start; precision lapped and fit chaser holding blocks; lever handle for use on small turret lathes; rapid chaser changeover; and, standard chasers threads close to shoulder. Made by **Jones & Lamson Machine Co.**, Dept. 710, 160 Clinton St., Springfield, Vt.

For more details circle **NED-8799** on enclosed inquiry slip

SPINDLE TYPE CENTER made to fit any size chuck



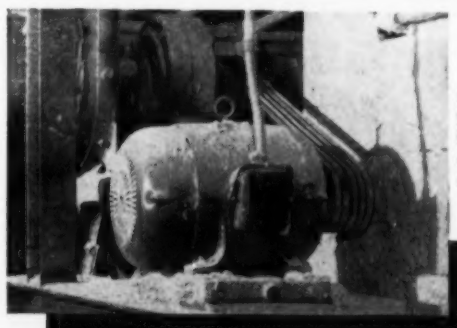
Mounting to an independent chuck, Red-E antifriction center provides accurate centering for turning irregular shaped pieces and for accurate alignment to headstock when turning uncentered work such as forgings, castings and crankshafts. Center is mounted on outside spindle of tailstock and held securely by hardened and ground tapered bushing. It is designed with precision antifriction bearings which are greased for life and can be made to fit any size or make chuck. Made by **Ready Tool Co.**, 554-D Iranistan Ave., Bridgeport 5, Conn.

For more details circle **NED-8800** on enclosed inquiry slip

MAGNETIC TESTING DESK for variety of routine tests

Major components and auxiliary equipment necessary for making direct current magnetization and hysteresis tests and simple flux measurements are contained in this magnetic testing desk. Unit is used with various permeameters and magnetic devices which make possible testing of almost all types of magnetic materials. Instruments are enclosed in modern aluminum desk with sloping top that places all controls within easy reach of seated operator. Operation is on moderately steady 125-v dc and 115-v 60-cycle ac. Made by **General Electric Co.**, Schenectady 5, N. Y.

For more details circle **NED-8801** on enclosed inquiry slip



Century 5 horsepower totally enclosed fan-cooled motor drives a mixer in a processing plant.

Century Serves the Electric Motor User in Two Important Ways:

1. Century motors are designed and constructed for a long, dependable operating life.
2. And — they are skillfully selected to match the operating characteristics of the many kinds of equipment they drive.

In CENTURY'S wide range of types and sizes (up to 400 H.P.) there are available: 4 classes of starting torque — 6 methods of speed control — 4 classes of frame protection — a dozen methods of mounting the motor — plus many special specifications.

Both proper design and skillful applications are required to give top performance and long life.

Specify Century motors on all your equipment.

709R

Century Electric Company is celebrating its 50th year in the electrical industry.

CENTURY ELECTRIC CO.
1806 Pine Street • St. Louis 3, Missouri
Offices and Stock Points in Principal Cities

For more details circle **NED-8802** on enclosed inquiry slip

NO MORE CARBON SCRAPING

*DUNK AND DRIER BASKET INCLUDED

U. S. PAT. #2318842*

GUNK DUNK BENCH Carburetor and Parts Cleaning Kit. New 6½ gal. size deep "Vapor-catcher" design pail.

Nothing Decarbonizes and Cleans CARBURETORS, FUEL PUMPS, PARTS *Like..*

New—Improved More Potent*

GUNK HYDRO-SEAL

A WORD OF CAUTION
If it doesn't bear the Genuine GUNK trademark, it may be a partly diluted imitation—and will not give you the Safety and Advantages of Genuine GUNK and should be flatly refused.

*1. Faster . . . Terrific penetration . . . new improved odor.
2. Quickly digests and removes carbon gum, paint, lead, makes possible accurate visual inspection and fitting of delicate metering mechanisms, jets, orifices and diesel nozzles . . . without etching.
3. Lasts more than one year . . . due to water blanket.
4. Works hot or cold . . . Rinses wet or dry.
5. Patented Double Barrel Performance Guaranteed.

SOLD BY BETTER JOBBERS EVERYWHERE—Write for Name of Nearest Stocking Jobber—Flatly Refuse Substitute Imitations—

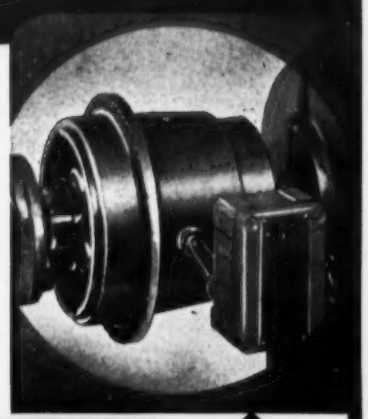
IMMEDIATE DELIVERY 1 GALLON OR A TANK CAR

CURRAN CORP. Mfg. Chemists LAWRENCE, MASS

For more details circle **NED-8803** on enclosed inquiry slip

Can it improve YOUR PRODUCTS? YOUR PRODUCTION?

ANCHOR TORQUE-SENSITIVE MECHANICAL Control



COUPLINGS for all direct drives

(Incorporates standard flexible coupling) Operating range 10 to 2,000 inch pounds.

PULLEYS for belt or chain drives
Operating range 20 to 10,000 inch pounds

● These automatic mechanical units make use of increasing torque to control the operation of machinery. They protect machinery from overload and reduce "down time" by eliminating sheared pins. They will also operate signals to give ample warning of build up in load.

Since 1938 many large industries have specified ANCHOR CUT-OUTS. They are the established "protection method" for the conveyor industry.

WRITE FOR CATALOG 50A

ANCHOR STEEL & CONVEYOR CO.
DESIGNERS & MANUFACTURERS
6906 Kingsley Ave., Dearborn, Mich.

For more details circle **NED-8804** on enclosed inquiry slip

Next winter, keep heat and heating costs from

"HITTING the CEILING"

Thermolier Unit Heaters are the most economical answer to many tough heating problems. Easy to install and to relocate at any time to meet changes in plant layout or heating requirements. Waste no valuable floor or wall space. Aim heat where you need it. You pay only for heat you use . . . instead of banking heat wastefully up at the ceiling. Heat is turned on and off by throwing a switch, manually or automatically by simple thermostatic controls. Thermoliers have a patented internal cooling leg which permits use of inexpensive, simple thermostatic trap. Write for full descriptive catalog.

Thermolier Unit Heaters

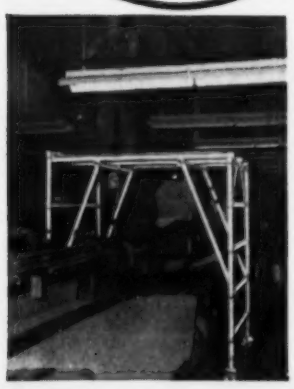
GRINNELL

Grinnell Company, Inc., Providence 1, R. I.
Branch Warehouses in principal cities.

For more details circle NED-8805 on enclosed inquiry slip

SAVE up to 70% with Aluminum Alloy "UP-RIGHT" SCAFFOLDS

NEW, FASTER, SAFER WAY TO GET UP IN THE AIR & ROLL WITH THE JOB

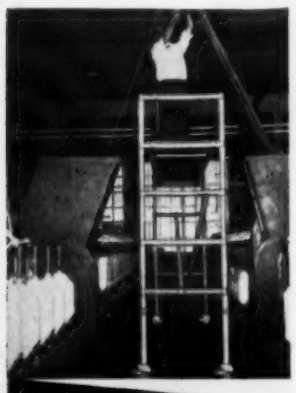


30' Mobile TOWER SCAFFOLD

which took only 10 minutes to erect. A tower of any other height desired can be erected by using the required number of standard 6' or shorter sections. Each one-piece section is easily handled by one man.

Mobile 6', 8' or 10' SPAN SCAFFOLDS

"The only way to get over looms and spinning frames", reports textile plant manager. Ideal for narrow aisles and cluttered areas in any factory.



ROLL-AROUND and SAFETY CAGE

Provides new, faster method for covering entire wall areas of tanks. Can be rigged by one man. Roll-Around is anchored to eye-bolt on top of tank. Safety cage is raised or lowered while rolling around.

WRITE FOR DESCRIPTIVE CIRCULAR

"UP-RIGHT" SCAFFOLDS

DEPT. 141 • 1013 PARDEE ST. • BERKELEY, CALIF.
FACTORIES: BERKELEY, CALIF • TETERBORO, N. J.

• OFFICES IN ALL PRINCIPAL CITIES •

For more details circle NED-8806 on enclosed inquiry slip

VARIABLE-SPEED MOTOR SYSTEM has 16 speeds forward or reverse

Consisting of motor-generator, controller and drive motor, any of which may be mounted any distance from the others in any position, adjustable-speed motor system is fundamental Ward-Leonard type of speed control for operation on single or polyphase alternating current circuits. Single controller provides 16 forward or 16 reverse speed adjustments in increments of 150 rpm up to total of 2400 rpm, plus full dynamic braking. Vernier rheostat can be connected for finer adjustment. Sizes are ¾-hp through 3 hp for operation from polyphase circuits and ¾-hp through 1½ hp for operation from single phase circuits. Excitation is by full-wave rectifier of Tungar type. Made by **Baldor Electric Co.**, 4353 Duncan Ave., St. Louis 10, Mo.

For more details circle NED-8807 on enclosed inquiry slip

PATTERN-DRAW MACHINE features twin jolt cylinders for both jolting and drawing

Necessity of external guides is eliminated in model No. 5050 jolt rock-over pattern-draw machine which features twin 5-in. jolt cylinders for both jolting and drawing operations. Pistons operate in tandem and guide against one another. Machine has 600-lb jolt capacity on standard 80-psi line pressure and 10-in. pattern draw stroke. Having open ends, it can handle flasks of any length and up to 27 in. wide. Flask space is maximum 18 in. and 13½ in. minimum. Two integrally mounted 1¼-in. air vibrators are employed.

Rock-over table is automatically locked by means of air cylinders which prevent it from slapping or springing. Pattern is bolted to one-piece constructed cast steel rock-over table and will not shake loose during jolt operation. Flask and bottom board are held against table during rock-over by air-operated diaphragm type flask clamp. Additional features include centralized controls, adjustable air-locked leveling bars, single valve to control flask clamp and leveling device, automatically controlled valve to govern rock-over operation and adjustable two-speed draw. Made by **SPO Inc.**, 6474 Grand Division Ave., Cleveland 25, O.

For more details circle NED-8808 on enclosed inquiry slip

SAVE HOURS of TIME and LABOR with the VERSATILE, HEAVY-DUTY

SAW GUN

Saws and Files Metal, Wood, All Materials . . . Quickly . . . in Hard-to-Reach Places

Here is one of the handiest, most valuable power tools now used by thousands of electricians, plumbers, maintenance men, sheet metal workers and many other tradesmen.

The Mid-States Saw Gun can be powered by an electric drill, air drill or flexible shaft to *cut or file practically any material!* It is lightweight, easy to handle (has detachable finger-grip handle) and versatile in performance. Use it for cutting cardboard or a 36" steel beam—Ideal for cutting openings in walls or floors and for cutting pipes and metal—Has 1001 uses.

You'll use the Saw Gun on *every job*—direct time and labor savings will pay for purchase price in only a few days.

PRICE $42.50

Territories open for Representatives and Jobbers.

MID-STATES WELDER MFG. CO.
6025 SO. ASHLAND AVE., CHICAGO 36, ILLINOIS

For more details circle NED-8809 on enclosed inquiry slip

BLACK DIAMOND
PRECISION DRILL GRINDER

BE PREPARED—FOR BROAD USE OF SMALL DRILLS REDUCE DRILLING COSTS—DRILL BREAKAGE—WORK REJECTS. SHARPEN ALL SMALL DRILLS WITH "THE ONLY" BLACK DIAMOND.

Black Diamond Grinders cut 50% and more on drill sharpening and drilling costs. They sharpen small drills so efficiently and accurately that drill breakage and work spoilage are tremendously reduced.

Anyone can operate a Black Diamond, can keep all small drills sharp—and true centered with smooth lips accurately ground to the same length, correct angle and clearance for fast, precision drilling.

The built-in Diamond Point Dresser, is instantly available to keep the grinding wheel sharp cutting and the Web Thinning Attachment cares for all types of Notched Points.

If you use small drills, singly or in gangs, this moderately priced grinder will keep any quantity sharp, always ready for use. You should own a Black Diamond. Write for New Bulletin.

BLACK DIAMOND SAW & MACHINE WORKS, INC.
NATICK, MASSACHUSETTS

For more details circle NED-8810 on enclosed inquiry slip

POSITIVE PROTECTION AGAINST PRESSURE BUILD-UP

CRANE no. 960 AUTOMATIC PRESSURE REGULATORS

Crane Brass Regulators not only reduce pressure, they hold it at the desired point regardless of moderate fluctuations in inlet pressure. Even when outlet steam and air are not being used, outlet pressure cannot build up to inlet pressure.

Once installed, Crane No. 960 Regulators work automatically . . . require only periodic inspection and cleaning. All working parts are easily renewable. Piston operates in removable liner. Any wear is on liner—not on body walls.

Made for initial inlet pressures up to 250 pounds steam or air, in four outlet pressure ranges: 1 to 10, 5 to 30, 20 to 100, or 90 to 200 pounds. Sizes up to 2 in. For complete information, SEND FOR FOLDER AD-1607A.

CRANE CO., 836 S. Michigan Ave., Chicago 5, Ill.
Branches and Wholesalers Serving All Industrial Areas

EVERYTHING FOR EVERY PIPING SYSTEM

CRANE

VALVES • FITTINGS • PIPE • PLUMBING AND HEATING

For more details circle NED-8811 on enclosed inquiry slip

Type 71-A VARIAC Transformer $18.50

a new Low-Voltage Variac

The new Type 71-A VARIAC Transformer is a very convenient source of low-voltage a.c., continuously adjustable from zero to 16 volts, open circuit. It is rated at 5 amperes at 13 volts output, continuous duty.

This new transformer is of the VARIAC type, with a completely isolated secondary winding. The slider track is calibrated in open-circuit voltage. The limited voltage range makes this transformer particularly safe for experimental work; the isolated secondary permits its use in floating circuits; the continuous adjustment is convenient in compensating for voltage fluctuation, or in determining performance over a variable voltage range.

The unit is 5½ inches long, 3⅝ inches wide and 3¼ inches high. Its net weight is 4 pounds.

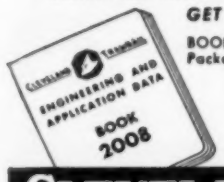
Write for a copy of the new VARIAC Bulletin. Just off the Press

GENERAL RADIO Company 275 Massachusetts Ave. Cambridge 39, Mass.
90 West St. NEW YORK 6 *920 South Michigan Ave.* CHICAGO 5
1000 North Seward St. LOS ANGELES 38

For more details circle NED-8812 on enclosed inquiry slip

ONE *Extra* HOUR OF PRODUCTION DAILY

Many shops are getting an extra hour of production and more out of their machine tools by use of simple inexpensive overhead tramrail cranes that reduce the time to load and unload the machines. If you want greater machine productivity, check with Cleveland Tramrail.



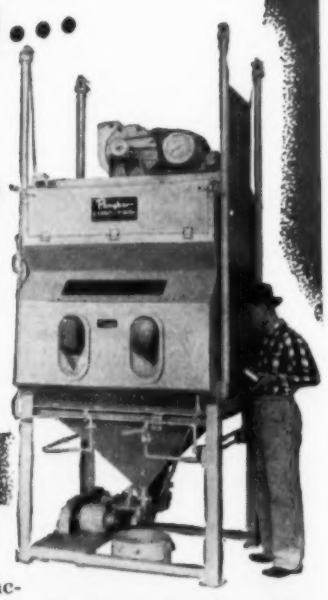
GET THIS BOOK! BOOKLET No. 2008 Packed with valuable data.

CLEVELAND TRAMRAIL DIVISION
THE CLEVELAND CRANE & ENGINEERING CO.
6608 East 285th St., Wickliffe, O.

CLEVELAND TRAMRAIL

For more details circle NED-8813 on enclosed inquiry slip

PANGBORN Hydro-Finish gives better tool room results... *in a fraction of the time!*



SIMPLIFY the manufacture and maintenance of tools, dies and molds with versatile Pangborn Hydro-Finish. It reduces usual costly handwork and produces a surface virtually free from directional grinding lines.

And on the production line, use Hydro-Finish to eliminate many tedious finishing operations. It reduces cost and time involved in buffing. It lessens fatigue failure and cuts manufacturing costs.

Hydro-Finish is the new, versatile impact blasting process that uses a fine mesh abrasive suspended in water. Tolerances are held to .0001 of an inch.

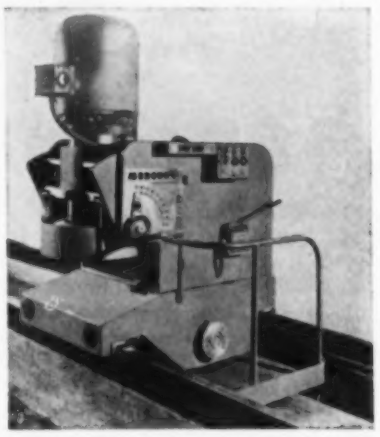
FIND OUT TODAY how Hydro-Finish can pay off for you. Write for Bulletin 1400-A to PANGBORN CORPORATION, 2400 Pangborn Blvd., Hagerstown, Maryland.

Look to Pangborn for the latest developments in Blast Cleaning and Dust Control.

Pangborn
BLAST CLEANS CHEAPER
with the right equipment for every job

For more details circle NED-8814 on enclosed inquiry slip

TRAVELING HEAD GRINDER grinds and machines 20-ft castings



Designed for grinding armor plate, series E-20 traveling head grinder is also adaptable to grinding of edges, angular surfaces, compounds and bevels, as well as machining pads on heavy castings 20 ft or longer. Machine runs on self-powered precision rollers along rails machined to close tolerances and equipped with built-in leveling devices. It employs 20-in. face type grinding wheel mounted on head which tilts from horizontal to full vertical. Traverse rate is continuously variable. Two or more units can operate simultaneously on single set of rails. Mounted on concrete base, rails are kept clean by wiper system. The 20-hp motor and heavy duty spindle are mounted to feed in and out through 7-in. range. Made by **Mercury Engineering Corp.**, Machine Tool Div., 2102 N. Farwell Ave., Milwaukee 2, Wis.

For more details circle NED-8815 on enclosed inquiry slip

TRANSFORMER WELDER alternating current machine features easy-to-operate controls

Both general maintenance and production welding can be performed with model MCM transformer type welder which has full 200-ampere, 50 per cent duty, NEMA rating. Four variations available are 220-v or 220/440/550-v machines, each with or without power factor correction. Two open circuit voltages are provided: 80 v on low range and 55 v on high range. This design combines easy arc starting with low kilovolt-ampere demand load and primary ampere current.

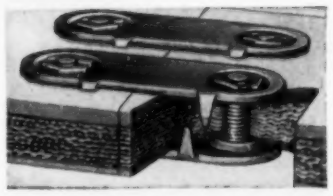
Insulated throughout, machine features easy-to-read current indicator for quick adjustment of welding current. Because there are few moving parts, maintenance costs are held to minimum under all operating conditions. Distributed by **Air Reduction Sales Co.**, Dept. NED, 60 E. 42nd St., New York 17, N. Y.

For more details circle NED-8816 on enclosed inquiry slip

FLEXCO® BELT FASTENERS and RIP PLATES

FOR HEAVY CONVEYOR AND ELEVATOR BELTS OF ANY WIDTH

- ★ FLEXCO Fasteners make tight butt joints of great strength and durability.
- ★ Trough naturally, operate smoothly through take-up pulleys.
- ★ Distribute strain uniformly.
- ★ Made of Steel, "Monel," "Everdur." Also "Promal" top plates.
- ★ FLEXCO Rip Plates are for bridging soft spots and FLEXCO Fasteners for patching or joining clean straight rips.



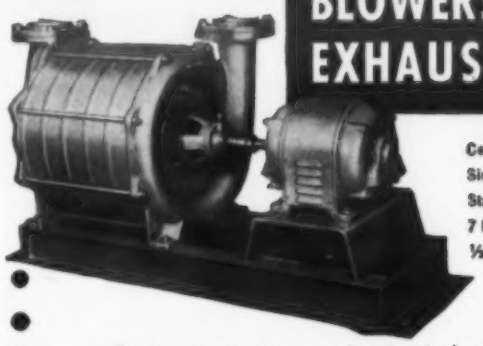
Compression Grip distributes strain over whole plate area

Order From Your Supply House. Ask for Bulletin F-100

FLEXIBLE STEEL LACING CO.
4664 Lexington St., Chicago 44, Ill.

For more details circle NED-8817 on enclosed inquiry slip

For AIR or GAS at constant pressure — Billmyre BLOWERS and EXHAUSTERS



Centrifugal Type . . . Single and Multi-Stage . . . ½ lb. to 7 lbs. pressure . . . ½ h.p. to 500 h.p.

Constant pressure maintained through entire capacity range. External bearings — no internal lubrication required. Hence, air delivered clean and dry.

Our engineering staff will help with problems in handling air or gases of various densities, temperatures or chemical compositions. Write or phone.

LAMSON

Send for Bulletin B-5 — gives descriptions, applications, specifications. Lamson Corporation, Billmyre Blower Division, 503 Lamson Street, Syracuse 1, N. Y.

For more details circle NED-8818 on enclosed inquiry slip

Engrave ...PANELS UP TO 25" WIDE IN YOUR OWN SHOP WITH THE *NEW* ENGRAVOGRAPH

Portable Model 1-S

The *only* portable machine which reproduces 15 sizes from one master alphabet.

The *only* one with *adjustable* copy holding slides for multiline engraving in one set-up.

Self-centering holding vise for nameplates.

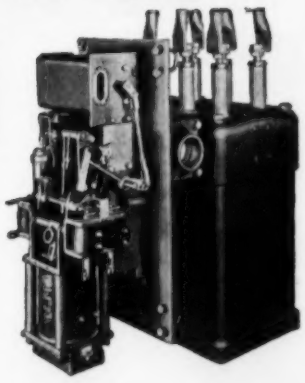
Send for Booklets
1-S26—portable model
H-26—heavy duty model

NEW HERMES, Inc. *new hermes* Engravo graph
13-19 University Pl, N. Y. 3, N. Y.
CANADA: 359 St. James St., Montreal
World's Largest Manufacturer of Portable Engraving Machines

For more details circle NED-8819 on enclosed inquiry slip

FULL ELECTRICAL PROTECTION that Lasts for Years

ALLIS-CHALMERS INDOOR OIL CIRCUIT BREAKERS



INDUSTRIAL ELECTRICAL SERVICE

2300 to 13,800 volts — Up to 500,000 kva interrupting capacity

Type D-20, 7.2 kv, 600 amp, 50,000 kva interrupting capacity oil circuit breaker with solenoid operator and automatic trip.

FOR DEPENDABLE PROTECTION of your electrical equipment, investigate the Allis-Chalmers breaker type that will meet your requirements.

Low maintenance, long life and reliable performance in these modern breakers are the result of over 50 years circuit breaker experience (air or oil). Allis-Chalmers circuit breakers for industry and electric power utilities range from 2500 to 230,000 volts, 15,000 to 10,000,000 kva interrupting capacity.

For complete information on the breaker for your requirements, contact your nearby A-C sales office or write Allis-Chalmers, Milwaukee 1, Wisconsin, specifying voltage and interrupting capacity. A-3504

ALLIS-CHALMERS

For more details circle NED-8820 on enclosed inquiry slip

BEARING KIT

ASSORTMENT
100 POPULAR SIZES & MAKES IN PARTITIONED PLASTIC BOX

NEW-PRECISION { FACTORY LIST PRICE ON BEARINGS OVER $250.00

Bearings are SKF — FAFNIR — MRC — NEW DEPARTURE — NORMA — FEDERAL and others. Sizes from 2mm to 8mm inside diameter, and 4mm to 24mm outside diameter. MECHANICS — TECHNICIANS — for servicing small machines such as Washing Machines, Vacuum Cleaners, Home Appliances, Cameras, Toys, Instruments, Automotive and equipment of all kinds.

No. MA-1 Assortment of 100 Ball Bearings in Plastic Box complete as shown, postpaid. ONLY $19.95

No. MA-2 Junior Assortment of 50 Ball Bearings in Plastic Box complete, postpaid. ONLY $10.95

IF YOU REQUIRE SPECIAL BEARINGS OF ANY SIZE, TYPE OR MAKE, WRITE US FOR IMMEDIATE SHIPMENT FROM STOCK.

● *DISPOSE OF YOUR OBSOLETE OR OVERSTOCK BEARINGS. WE PAY HIGHEST PRICES FOR ANY TYPE OF BALL, ROLLER, TAPER OR OTHER TYPE BEARING. WRITE OR PHONE WHAT YOU HAVE TO OFFER.*

MEDALLION MFG. CO. Dept. NE-7 — 25 E. 25th St. CHICAGO 16, ILL. CAlumet 5-0327

▲ For more details circle NED-8821 on enclosed inquiry slip ▲

B.F.Goodrich

HERE'S HELP... on industrial tire and wheel problems

YOU need two things for maximum industrial tire and wheel service:
(1) built-in tire quality and
(2) the *right* tire for the job.

With B. F. Goodrich, you get both of these factors.

In the first place, BFG's are built to give long, trouble-free service and maximum operating results.

Secondly, your local B. F. Goodrich dealer has been specially trained to give you a complete industrial Tire & Wheel Analysis service.

HERE'S HOW THE TW TIRE AND WHEEL ANALYSIS PLAN HELPS YOU

● Your B. F. Goodrich dealer will study your operation. He'll analyze loads, hauls, equipment, floors and hauling surfaces, and then make specific recommendations regarding tire and wheel types and sizes. He'll also offer maintenance suggestions you'll find extremely helpful. His recommendations are impartial because only BFG has a *complete* line of solids, semi-pneumatics and pneumatics. There's no obligation for this service . . . longer industrial tire life is yours for the asking.

A similar program is available for the manufacturers of industrial hauling equipment.

Use the coupon for full details of this plan.

The B. F. Goodrich Co.
Department TW-143
Akron, Ohio
Please give me additional information on your new Tire and Wheel Analysis plan.
Name_____
Title_____
Company_____
City_____ State_____

RESEARCH KEEPS B.F.Goodrich FIRST IN RUBBER

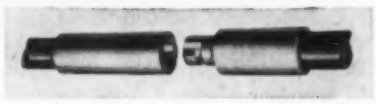
▲ For more details circle NED-8822 on enclosed inquiry slip ▲

BULK MATERIAL TRUCK
industrial unit has ½-cu yd hopper

Self-dumping hopper of ½-cu yd capacity mounted on model 2500 Speed Truck can be discharged without operator leaving driver's seat. Truck, equipped with automotive type clutch and three speed transmission driving through both rear wheels, can haul sand, gravel, cement, water and other bulk materials when equipped with hopper. Power is furnished by 13-hp Wisconsin engine. Platform and double deck truck models also are available. Made by **Kalamazoo Mfg. Co.**, 1827 Reed St., Kalamazoo 24F, Mich.

▲ For more details circle NED-8823 on enclosed inquiry slip ▲

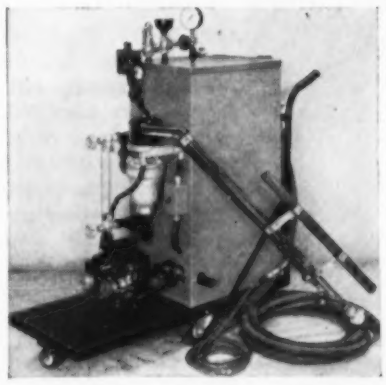
CABLE CONNECTOR
works on double cam principle



Contact approaching 600 psi needed for minimum resistance is obtained with improved Cam-Lok welding cable connector constructed of solid brass and machined for smooth fit. Design utilizes double cam principle where one cam exerts pressure parallel to axis of connector, the other perpendicular to axis. Long runs of cable can be graduated from 4/0 down to light whip end for maximum flexibility and minimum voltage drop without adaptors or reducers. Connector is self-compensating for wear, locks tightly, releases easily, has no spring action and minimizes arcing and burning. Made by **Empire Products, Inc.**, Cam-Lok Div., P. O. Box 98B, Cincinnati 36, O.

▲ For more details circle NED-8824 on enclosed inquiry slip ▲

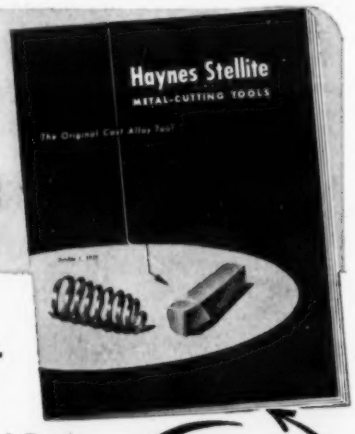
TOOL & EQUIPMENT CLEANER
is high pressure steam-jet type



Combination of 200-psi operating pressure and twin-jet steam lance with finger-tip control gives high velocity and strong cleaning action to model JC-25 Speedylectric steam-jet cleaner for machine tools, windows and equipment. Measuring 16 x 48 in., the self-contained unit is portble in close quarters and can mount water tank with capacity for 3 to 4 hours operation. Small quantities of solvent are used effectively together with steam created in built-in boiler. Boiler water acts as resistance heating element, and when water is gone, no current passes and steam is not generated. Available for 220, 440 or 550-v operation and rated at 20 kw, cleaner consumes about 15 kw per hour. Made by **Livingstone Engineering Co.**, Dept. 165, 100 Grove St., Worcester 5, Mass.

▲ For more details circle NED-8825 on enclosed inquiry slip ▲

Get this New Guide



...TO FAST
...ECONOMICAL
MACHINING

44 PAGES
46 ILLUSTRATIONS
28 TABLES

"HAYNES STELLITE Metal-Cutting Tools" gives up-to-date information on chip formation, tool wear, and the machinability of metals. It also contains valuable information on how to increase tool service life and metal-removal rates by proper tool design and tool selection.

Every machinist, metallurgist, and tool designer should have a copy of this new manual and catalog. Write for a copy.

Haynes Stellite Company
A Division of Union Carbide and Carbon Corporation
UCC
General Offices and Plant: Kokomo, Indiana

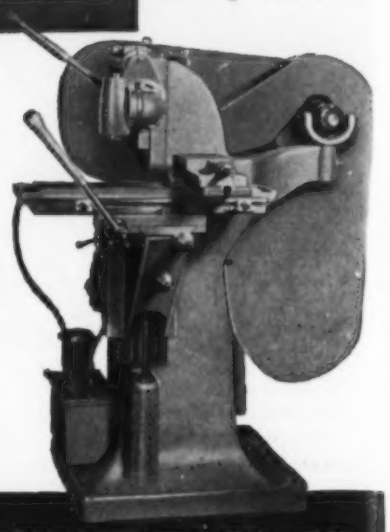
"Haynes Stellite" is a trade-mark of Union Carbide and Carbon Corporation.

▲ For more details circle NED-8826 on enclosed inquiry slip ▲

U.S. No.1 MILLING MACHINE

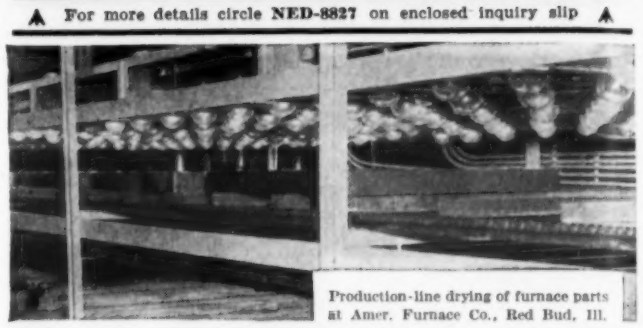
The No. 1 Value in all purpose high production hand-feed milling machines.

Send for information on power feeds universal milling head and other efficient attachments.



U. S. MACHINE TOOL CO.
A Division of the U. S. Burke-Machine Tool Co.
East 72nd Street Cincinnati 16, Ohio

▲ For more details circle NED-8827 on enclosed inquiry slip ▲



Production-line drying of furnace parts at Amer. Furnace Co., Red Bud, Ill.

CUT DRYING TIME IN HALF with NALCO INFRA-RED LAMPS

Industry-proved Nalco Lamps are cutting hours from production-drying time for scores of big-name users. Long-lasting carbon filaments provide greater penetration . . . less glare . . . fewer burn-outs.

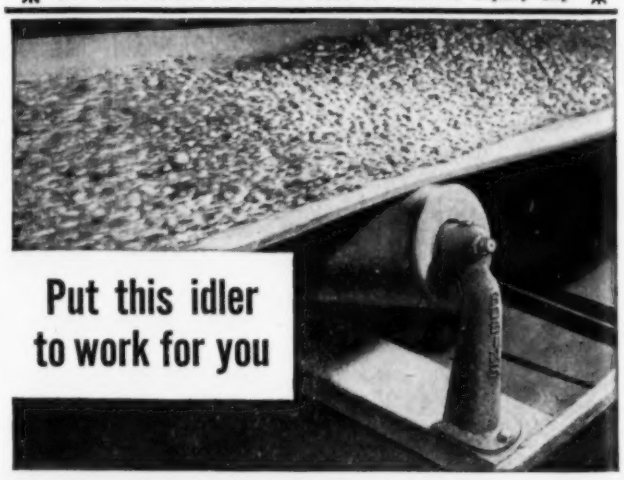
SAVE MONEY, SPACE TOO! Nalco Lamps keep parts moving faster—save hours and dollars . . . eliminate expensive storage space. Available in inside aluminumed or clear glass types. FREE Bulletin, "Drying Problems Made Easy," upon request.

PILOT LAMPS
Carbon filament—110-120v. Superior to tungsten on machines that vibrate. Variety of sizes.

NALCO INFRA-RED DRITHERM

NORTH AMERICAN *Electric Lamp Co.*
1013 Tyler Street St. Louis, Mo.

▲ For more details circle NED-8828 on enclosed inquiry slip ▲



Put this idler to work for you

It's a Robins Troughing Idler—with features no other belt conveyor idler can offer.

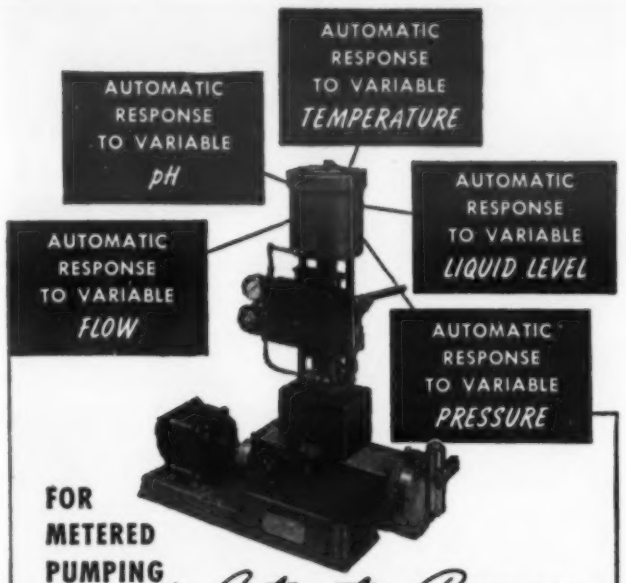
Robins Ball Bearing Troughing Idlers fit belt conveyors up to 36" wide. Robins Roller Bearing Troughing Idlers have exclusive Triple Grease Seal which locks grease in, keeps dirt and moisture out. Sizes to fit belt conveyors up to 60". Both types provide exclusive One-Shot Lubrication.

Immediate shipment from stock. Most sizes of Robins Idlers now carried in stock for immediate shipment. For Troughing, Return, or Flat Belt Idlers write for Bulletin 120-A.

ROBINS IDLERS

ROBINS CONVEYORS DIVISION
Hewitt-Robins Incorporated
Passaic, New Jersey

▲ For more details circle NED-8829 on enclosed inquiry slip ▲



FOR METERED PUMPING *in Automatic Response* TO VARIABLE PROCESS DEMAND

WRITE for complete description and specifications. Lapp Insulator Co., Inc., Process Equipment Division, 474 Maple St., LeRoy, N.Y.

Lapp *Auto-Pneumatic* **PULSAFEEDER**

PISTON-DIAPHRAGM CHEMICAL PROPORTIONING PUMP

For more details circle NED-8830 on enclosed inquiry slip

Every business, time and again runs into design and production snags. When the problem involves laminated plastics, we're often called in to do the worrying. And nine times out of ten we come up with the right answer . . . fast! Because that's our job, day in and day out, year after year—supplying the right grade of vulcanized fibre, phenol fibre, glass melamine and silicone laminates—plus our complete fabricating service designed to turn out precision parts having the exact physical, electrical and chemical characteristics you require. The next time you're stymied with laminated plastics troubles, call in a Taylor sales engineer . . . he'll show you how Taylor *full-line* Service can help you. Write today for a copy of the new Taylor Catalog ND11.

Taylor **TAYLOR FIBRE CO.**
NORRISTOWN, PENNSYLVANIA
West Coast Plant: La Verne, California
Offices in Principal Cities

For more details circle NED-8831 on enclosed inquiry slip

PORTELVATOR©
(THE HANDY HAMILTON PORTABLE ELEVATING TABLE)
LIFTS — LOWERS — LEVELS
TRANSPORTS

Eliminates "ganging-up" on heavy lifts. Reduces occurrence of industrial accidents. Eliminates the need for extra hands, extra trips.

STANDARD MODEL CAPACITIES TO 5000 POUNDS

SAFETY of OPERATION is inherent in the **PORTELVATOR** mechanical lift principle, which transmits power through worm, worm gear, and screw.

TAKE TIME TO LEARN THE DIFFERENCE
WRITE FOR BULLETIN P-508

THE *Hamilton* TOOL COMPANY
901 HANOVER STREET • HAMILTON • OHIO • U • S • A

For more details circle NED-8832 on enclosed inquiry slip

KEY-OPERATED SWITCH
offered with two or three positions

This oil tight class 9001 type TSK key-operated selector switch is available as two or three-position model with variety of cams and contact blocks for wide variety of operations. Every possible combination of key withdrawal (locking) positions for two and three-position switches is available. Unit is suited for application where operation must be denied to unauthorized personnel. Made by **Square D Co.**, 4045 N. Richards St., Milwaukee 12, Wis.

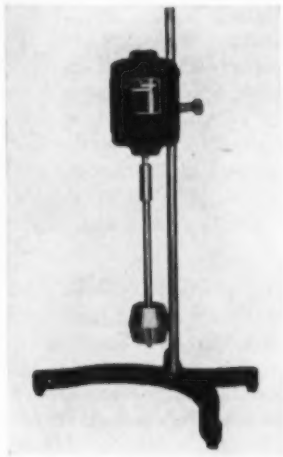
For more details circle NED-8833 on enclosed inquiry slip

DECADE RESISTOR
incorporates RTMA standard values

Using high-quality components, Model 2B decade resistor incorporates RTMA standard values. The 10 per cent series has total of 72 discrete resistance values. Instrument has range of 10 ohms to 8.2 megohms and is accurate to plus-minus 2.5 per cent for any value. Maximum ratings for 10 ohms to 82 kilohms is 2 w and for 100 kilohms to 8.2 megohms is 450 v. Values per decade are 10, 12, 15, 18, 22, 27, 33, 39, 47, 56, 68 and 82. Cabinet, finished in gray crackle, measures 4¼ x 7¼ x 4 in., and panel is dark blue. Made by **Rochester Electronics Co.**, Dept. NED-1, P. O. Box 227, Penfield, N. Y.

For more details circle NED-8834 on enclosed inquiry slip

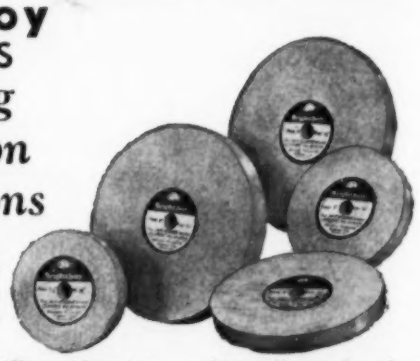
LIQUID MIXER-BLENDER
develops wetting and mixing action



Used for mixing or blending two liquids of different specific gravity, improved Duplex Dispersator is cylinder shaped like double cone which revolves at high speed. Centrifugal force thrusts products outward through narrow slots in lower cone under considerable pressure. With cylinder open at top and bottom, two-way opposed flow is obtained, insuring intense mixing and thorough wetting action. Device can also be used to draw heavy solids and liquids from bottom or light materials from surface of liquid to insure thorough wetting and dispersion. Made by **Premier Mill Corp.**, Dept. N, 218 Genesee St., Geneva, N. Y.

For more details circle NED-8835 on enclosed inquiry slip

MULTIPLE-USE, RUBBER-CUSHIONED
Brightboy
ABRASIVES
widening production applications



- *Results show time savings up to 50%; burring, finishing, cleaning, polishing, in one operation*
- *Application versatility widened in working all metals, plastics, laminated materials, wood, glass*
- *Manufacturers of defense and civilian-use products, parts and assemblies benefit from new methods and applications.*

SAVES TIME: Bridges the gap between the rough grind and the buff. Works to close tolerances; can be shaped to contour. Produces a wide variety of conventional and special finishes and patterns; frequently the final polish. Requires no before-use preparation or dressing; no skilled labor to handle it.

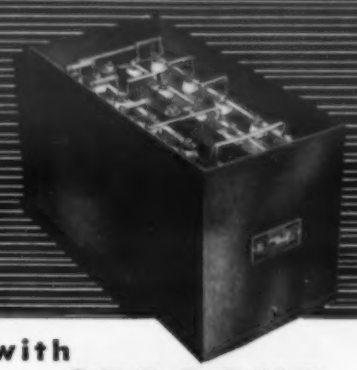
SOME GENERAL USES: Removing light digs, tool and heat marks. Cleaning welded and soldered joints. Finishing dies and molds. Burring and finishing stampings, castings, machined and molded parts.

WELDON ROBERTS Brightboy

Ask your dealer about Brightboy. Write the Brightboy Service Department on any problems where light finishing and precision surfacing methods and production are involved.
BRIGHTBOY INDUSTRIAL DIVISION
WELDON ROBERTS RUBBER CO.
NEWARK 7 N. J.
America's Pioneer Manufacturers of Rubber-Bonded Abrasives

For more details circle NED-8836 on enclosed inquiry slip

CUT POWER COSTS!



with **SPRAGUE**
POWER FACTOR CAPACITORS

Lower power bills . . . greater loads from present circuits . . . less wiring, transformer, and switchgear costs in new installations—these are some of the advantages of SPRAGUE "on-the-spot" low-voltage industrial power factor correction capacitors. Write for a free copy of the Sprague Power Factor Correction Guide today and find out how you, too, can save money with Sprague Capacitors.

SPRAGUE ELECTRIC COMPANY
NORTH ADAMS MASS.

For more details circle NED-8837 on enclosed inquiry slip

Thousands In Use

BUT SELDOM SEEN ON THE RESALE MARKET

Because Users Keep Them—They Won't Wear Out

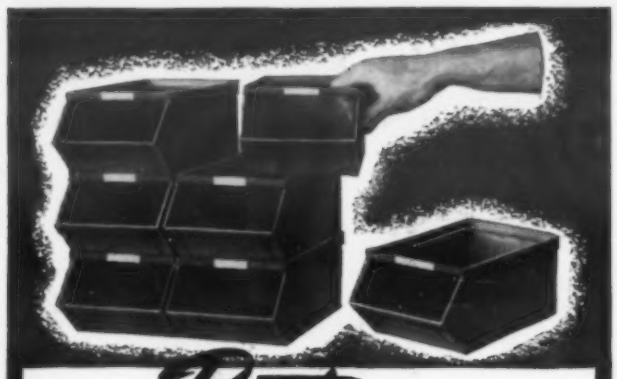
MODEL J cuts 10" rounds, 18" flats. Available as a wet or dry-cutting machine.

JOHNSON BAND SAWS Are a Fundamental Tool—Excellent Quality and Standards.

These superior saws stay on the job year after year, giving trouble-free service, because they're made right, from the best standard parts obtainable. They are the product of a long established, thoroughly experienced Company with a reputation for offering top values in modern metal-cutting equipment. For greater capacity, speed and efficiency, be sure to choose a Johnson Saw. Model J, pictured, 10" x 18" capacity, Model B, 5" x 10" capacity. Write for catalog today.

JOHNSON MANUFACTURING CORP.
ALBION, MICHIGAN

For more details circle NED-8838 on enclosed inquiry slip



Parts...

★ Where You Want Them . . .

★ When You Want Them

You'll save time, space and labor handling parts and material when you use these patented STACKBINS. STACKBINS keep parts instantly accessible—eliminate waste hand motions—stack compactly to form units of exactly the right shape and capacity—make order filling or assembly work faster, easier, more efficient. Heavy steel, all-welded construction. Sizes from 3½" x 6" x 3¼" to 15" x 24" x 11". Prices from $.65 to $2.75.

Manufactured and sold in Canada exclusively by Wickware-Stackbin, Ltd., Ottawa

Write Stackbin Corp., 1081 Main St., Pawtucket, R. I.

STACKBIN SYSTEM

"Stacked and Still Accessible"

For more details circle NED-8839 on enclosed inquiry slip

FISHER POSITROL

FOR ACCURATE POSITIVE VALVE POSITIONING

FEATURES

- COMPACT-SIMPLE-RUGGED
- 2 YEARS FIELD SERVICE
- EASILY ADJUSTABLE
- FORCE BALANCE TYPE OF POSITIONER
- AVAILABLE WITH OR WITH OUT BY-PASS
- USABLE AS REMOTE POSITION INDICATOR
- FOR DIRECT OR REVERSE ACTION VALVES

Write for Bulletin E-3500

FISHER GOVERNOR CO.

MARSHALLTOWN, IOWA

For more details circle NED-8840 on enclosed inquiry slip

SYNTHANE—The Light-Weight Material

MAY GIVE YOU NEW IDEAS

Synthane plastic laminates are about half the weight of aluminum . . . and that is only one of many advantages they may have for you. Synthane is strong, hard, dense, resistant to corrosion, abrasion, impact fatigue and wear. It is easily machined on standard production equipment and has excellent electrical properties such as high dielectric strength and low dielectric constant. If you have a materials problem the answer may be Synthane. For more information clip and mail the handy coupon today.

TECHNICAL PLASTICS
SHEETS • RODS • TUBES
FABRICATED PARTS

SYNTHANE

MOLDED-LAMINATED
MOLDED-MACERATED

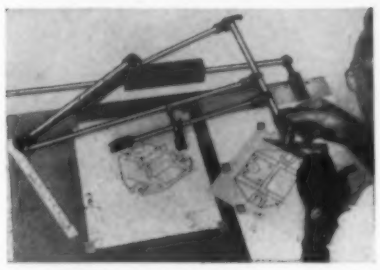
SYNTHANE CORPORATION
Northeast River Road, Oaks, Pa.

Please send me a copy of the complete Synthane catalog.

Name_____
Firm_____
Address_____
City_____ State_____

For more details circle NED-8841 on enclosed inquiry slip

DRAFTING INSTRUMENT
semiskilled draftsmen can use it



Both isometric and dimetric drawings can be produced from blueprints by semiskilled draftsmen as well as trained isometricians when using the Vibax Isometric - Dimetric drafting machine. Device is mounted on ordinary drafting board and can be used at any angle at which board is set. Principal working part is linkage assembly which rides freely from side to side on guide bar. If tracer describes a circle, linkage assembly working on Watt's second principle of parallel motion will cause isometric pencil to describe an ellipse whose ratio of minor to major axes is 0.557 to 1. If pencil is in dimetric holder, ratio will be 0.333 to 1. Machine is set up to use hard or soft pencils, stylographic inking pens and ball point pens. Tracer transmits touch of draftsman with fidelity. Distributed by **Indamer Corp.**, Dept. DEN, 11 W. 42nd St., New York 18, N. Y.

For more details circle NED-8842 on enclosed inquiry slip

FIRE EXTINGUISHER
air-pressurized model aims like gun

Aiming and operating like a gun, this 1-qt air pressurized fire extinguisher discharges vaporizing liquid fluid for extinguishing both flammable liquid and electrical type fires. Use requires no pumping. Pulling trigger discharges liquid at fire target. Extinguisher is recharged by pouring in more vaporizing liquid and pressurizing with any standard air chuck such as used in gasoline service stations. Called Alfco Pressurized Fire-Gun, it carries inspection and approval label of Underwriters' Laboratories. Made by **American-LaFrance-Foamite Corp.**, 100 E. LaFrance St., Elmira, N. Y.

For more details circle NED-8843 on enclosed inquiry slip

DO YOU KNOW? Providing the first means of directly recording commentary or musical background magnetically on the edge of 16-mm picture film, a new recorder-projector will also reproduce optically recorded sound. Magnetic oxide stripe can be placed on edge of film either before or after it has been used for picture taking, and even if film already has optical or photographic sound track. This RCA "400" equipment has sound frequency range of 80 to 7200 cycles. Developed by Radio Corp. of America, RCA Victor Div., Camden, N. J.

For more details circle NED-8844 on enclosed inquiry slip

A benchmaster mill

handles thousands of jobs now done on a big mill

And deliveries are QUICK!

Why tie up a big mill to cut a keyway, to mill flats or dovetails, to do precise dividing jobs, etc? BENCHMASTER gives you EQUAL ACCURACY, GREATER SPEED and FAR EASIER OPERATION *at a fraction of big mill cost*—and will surprise you with its capacity!

Made in vertical, horizontal and production models. Write for literature!

benchmaster PUNCH PRESSES AND MILLERS

2952 West Pico Boulevard, Los Angeles 6, California

For more details circle NED-8845 on enclosed inquiry slip

NEW

MODEL-H NOLAN

1-Man Car Door Opener

New safety and efficiency features now make the Nolan 1-Man Car Door Opener a more necessary labor-saving, money-saving help than ever before!

NEW improved balance assures automatic unlocking of pawl for chain stripping during door opening or closing operation.

Opens Doors in 20 Seconds or Less!

No gangs needed. No mangled limbs or loss of life. A few quick pulls on anchor chain gets any door open in a jiffy. The NOLAN saves its low initial cost in first hour of operation.

FREE LITERATURE

Order one or more NOLAN Model-H Car Door Openers now. Catalog on request.

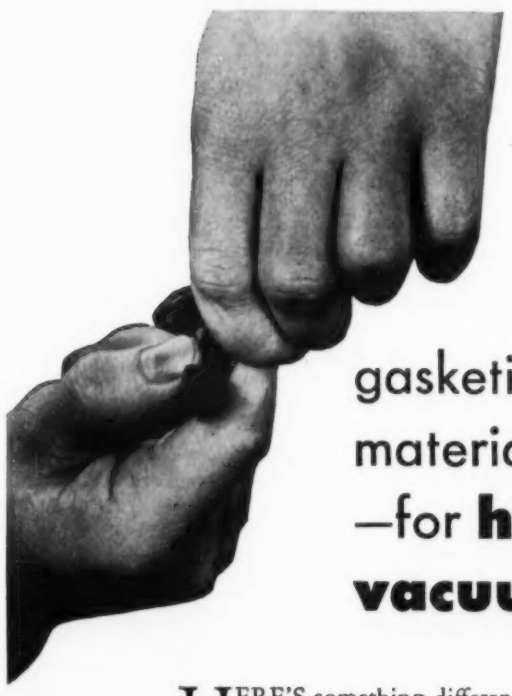
$29.50 F.O.B. Bowerston

THE NOLAN COMPANY

128 Pennsylvania Street • BOWERSTON, OHIO

For more details circle NED-8846 on enclosed inquiry slip

MYVASEAL*



gasketing material —for **high vacuum**

HERE'S something different—a synthetic elastomer that's tough and has a very low vapor pressure.

In the ports of electron tube exhaust machines, Myvaseal Gasketing Material results in longer-lasting tubes because its remarkably low vapor pressure means higher vacuum with less pumping.

*The newest television picture-tube pumping systems and rotary exhaust systems are being built with it. Older equipment can benefit from it. And users of other high vacuum systems, small and very large, are turning to Myvaseal Gasketing Material.

This new product is just another example of DPi's research in the interests of those who work with high vacuum.

Whatever your need in that field, let our technical staff serve you. Write to *Distillation Products Industries*, Vacuum Equipment Department, 763 Ridge Road West, Rochester 3, N.Y. (Division of Eastman Kodak Co.).

*Trade-mark

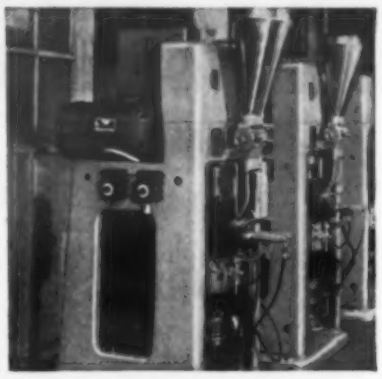
DPi

high vacuum research and engineering

Also . . . vitamins A and E . . . distilled monoglycerides . . . more than 3400 Eastman Organic Chemicals for science and industry

For more details circle NED-8847 on enclosed inquiry slip

20,000 STARTS-AND-STOPS A WEEK



with Star-Kimble Brakemotors on Stokes Presses

These 15-ton fully-automatic molding presses built by F. J. Stokes Machine Company run 24 hours a day, 7 days a week. Motor reverses twice a minute—*more than 20,000 times a week!*

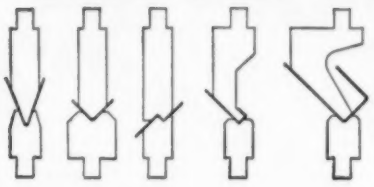
Star-Kimble Brakemotors handle this tough reversing service week after week, year after year, because there's no need for plugging the motor. Brake brings motor to an instantaneous stop *before* current is applied in reverse direction.

For full information on construction and ratings of Star-Kimble Brakemotors, write for free Bulletin B-501-A.

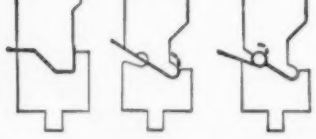
STAR-KIMBLE
MOTOR DIVISION OF
MIEHLE PRINTING PRESS AND MFG. CO.
214 Bloomfield Avenue, Bloomfield, New Jersey

▲ For more details circle **NED-8848** on enclosed inquiry slip ▲

BRAKE DIES



MADE FROM FORGED CHISEL STEEL BILLETS



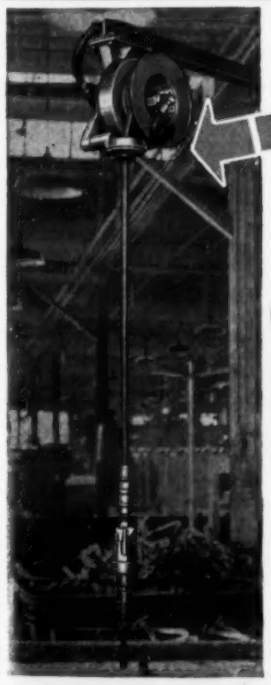
Made by the makers of the famous SEMCO NIBBLER PRESS

- MANY STILL IN USE EVEN AFTER 10, 20 AND EVEN 30 YEARS.
- THEY COST MORE BUT THEY LAST FOR YEARS.

Write for Estimates on Your Work and Ask for Latest Literature

SEMCO
SERVICE MACHINE COMPANY
INCORPORATED
202 MILLER STREET, ELIZABETH, N. J.

▲ For more details circle **NED-8849** on enclosed inquiry slip ▲



Combined
PNEUMATIC TOOL SUSPENSION AND AIR SUPPLY

HOSE which supplies air suspends pneumatic tool directly over the work spot, always handy. Tool is counterbalanced by spring tension of reel. Releasing tool lifts it automatically to convenient position. No cable suspension, no dangerous loops of loose hose to cause accidents. Speeds up production, lessens fatigue, reduces tool maintenance cost, saves hose.

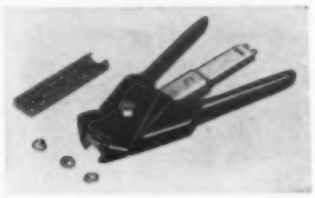
SEE YOUR JOBBER OR WRITE

Wayne
THE WAYNE PUMP COMPANY
FORT WAYNE 4, INDIANA • TORONTO

INDUSTRIAL HOSE REELS
FOR AIR, WATER, FLUID LUBRICANTS AND COOLANTS

▲ For more details circle **NED-8850** on enclosed inquiry slip ▲

HOG-RING PLIERS
adaptable to many stapling uses



Addition of heavy reinforcing plate to jaw is improved feature of model P7 magazine fed hog-ringer also practical for fastening upholstery materials to wire frames, fastening auto seat covers, attaching material to wire mattress frames and air-tight sealing of plastic bags. Wire, rods, cords and cables with diameters up to ½ in. easily pass through opened staple which can be closed as small as 5/16 in. Stapler is about size of ordinary pliers and fits into back pocket. It loads a strip of 50 preformed hog-ring or sharp pointed staples which can be used to penetrate fabrics. Made by **Bostitch, Inc.,** 411 Mechanic St., Westerly, R. I.

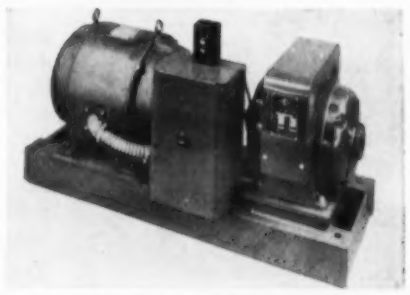
▲ For more details circle **NED-8851** on enclosed inquiry slip ▲

MOLTEN MATERIAL THERMOMETER
improved model is stainless steel

Improved features of Temperometer dial type thermometers for checking temperatures of molten babbitt metal, solder, lead, hot oils and waxes include all stainless steel construction, stem diameter of only 9/32-in. and closed tube end. Smaller stem diameter permits use of efficient bimetallic coil. Closed tube end prevents solutions from entering and fouling coil which is actuating element of instrument and is enclosed in tube. Thermometer is supplied with handle for suspending it over lip of kettle or ladle and can be made with ½-in. N. P. T. mounting nut if desired. Made by **W. C. Dillon & Co.,** Dept. NED, 1421 S. Circle Ave., Forest Park, Ill.

▲ For more details circle **NED-8852** on enclosed inquiry slip ▲

MOTOR GENERATOR SET
powers electric hand tools



This mono-coil high frequency motor generator set is used to convert 60-cycle current to 180-cycle and 360-cycle frequencies in plants using high-cycle automatic electric hand tools such as grinders and buffers. Sets are self-exciting and have built-in voltage regulation which automatically compensates for fluctuations in voltage to the load. Easily installed unit illustrated is rated at 6 kw, 360 cycles, 3600 rpm. Other ratings and speeds are available. Made by **Electric Machinery Mfg. Co.,** 821 Second Ave. S.E., Minneapolis 14, Minn.

▲ For more details circle **NED-8853** on enclosed inquiry slip ▲

Sheehan's **TWO-PLANE PRESS CONVEYORS**
SENSATION at CHICAGO SHOW

Here's the revolutionary Sheehan Model B Press Conveyor, equipped with a Flat-Wire Metal-Mesh Belt, that has Material-Handling men talking and marvelling at its performance. Think of it—at the loading end, top of belt is actually within 8 inches of floor, and with unusual two-plane design, conveyor can go under the back of presses, thereby saving working space and minimizing need for cumbersome chutes. Use of positive-drive sprockets in load-center of flat-wire belt, assures no belt slippage—oily conditions included.

LOWER-COST LONGER-LIFE
Sheehan Press Conveyors Can Solve Your Press Room Problems!

Investigate the many construction and safety features that make Sheehan Press Conveyors outstanding in performance and economy!

Write today for literature on sizes, special applications and cost data. You will be surprised at Sheehan's high quality and low prices.

R. T. SHEEHAN CO. PLYMOUTH, MICH.

▲ For more details circle **NED-8854** on enclosed inquiry slip ▲

gives you single-chain simplicity plus divided rollers

YES, the exclusive design of Link-Belt "RC" Flexible Couplings combines these two desirable features.

The result: equalization of load, proper balance at high speeds . . . adjustment to reasonable misalignment and end float . . . simplicity and economy.

Link-Belt makes a complete line of Roller Chain Couplings from fractional to 1000 hp. You can get all the facts from Folder 2363.

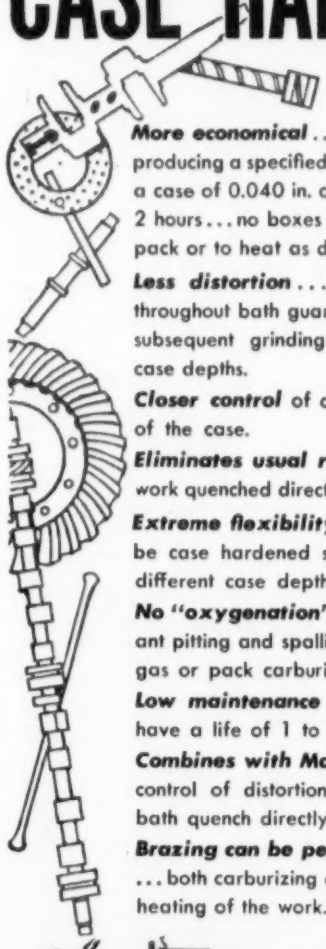
"RC" Couplings available in 30 sizes, ⅜ to 12 in. bore.

★ LINK-BELT "RC" FLEXIBLE COUPLINGS

LINK-BELT COMPANY: Chicago 8, Indianapolis 6, Philadelphia 40, Atlanta, Houston 1, Minneapolis 5, San Francisco 24, Los Angeles 33, Seattle 4, Toronto 8, Springs (South Africa). Offices in principal cities. 12,523

▲ For more details circle **NED-8855** on enclosed inquiry slip ▲

Cut costs with faster CASE HARDENING



More economical . . . is the fastest method of producing a specified case depth—for example, a case of 0.040 in. can readily be produced in 2 hours . . . no boxes or retorts to pack and unpack or to heat as dead loads.

Less distortion . . . temperature uniformity throughout bath guaranteed within 5° F. . . . less subsequent grinding . . . permits more shallow case depths.

Closer control of depth and other properties of the case.

Eliminates usual reheating operation . . . work quenched directly from carburizing bath.

Extreme flexibility . . . several batches may be case hardened simultaneously—each to a different case depth.

No "oxygenation" of the case, with attendant pitting and spalling, as frequently occurs in gas or pack carburizing.

Low maintenance costs . . . plain steel pots have a life of 1 to 3 years.

Combines with Martempering . . . for best control of distortion . . . by an isothermal salt bath quench directly after carburizing.

Brazing can be performed simultaneously . . . both carburizing and brazing done with one heating of the work. Brazing cost—nothing.

390 LBS. OF WORK AN HOUR
. . . from an Ajax furnace no larger than your desk!

180 lbs. of metal body screws per charge are given case depths ranging from 0.004" to 0.010" as required.

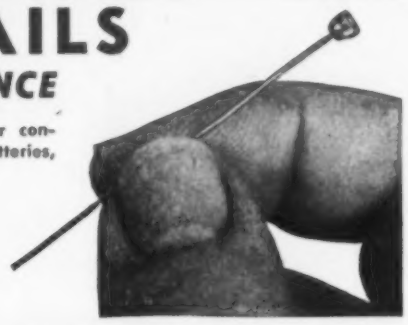
AJAX ELECTRIC COMPANY, Inc.,
103 Allen St.
Philadelphia 23, Pa.
World's largest manufacturer of electric heat treating furnaces exclusively

SELF-SHEDDING • SELF-CIRCULATING
AJAX HULTGREN
ELECTRIC SALT BATH FURNACES

▲ For more details circle **NED-8856** on enclosed inquiry slip ▲

PIGTAILS
FOR INSTANCE

Bushels of pigtails for condensers, resistors, batteries, etc., are now . . .



PRECISION WELDED WITH EASE
by RAYTHEON WELDPOWER* UNITS

Photo shows a typical application—a 0.025" dia. tinned copper pigtail welded to a light gauge brass cap. The new Raytheon Model G. Weldpower Head and Raytheon Condenser Weldpower Control Units make possible high speed precision assembly of small parts involving dissimilar non-ferrous metals. Ask us to show you how Raytheon Condenser Weldpower can be applied to your assembly problems. Or write for complete information. Address Dept. NE-11

Raytheon Condenser Weldpower Control Units, complete with Model G. Weldpower Head are available in 63, 225 and 1080 watt-second capacities.

*Reg. U. S. Pat. Off.

RAYTHEON

Excellence in Electronics

RAYTHEON MANUFACTURING COMPANY
Waltham 54, Massachusetts

For more details circle NED-8865 on enclosed inquiry slip

WRITE TODAY!

DICO'S WHEEL CATALOG *Free!*

A UNIQUE CATALOG SIMPLIFYING YOUR WHEEL ENGINEERING PROBLEMS.

A MODERN LINE OF INDUSTRIAL WHEELS 6"-18" RUBBER DIAMETER

DICO CORPORATION
406 S.W. 16TH ST., DES MOINES 5, IOWA

For more details circle NED-8866 on enclosed inquiry slip

CORD SETS
That Are Right On The Beam

● Cords, Ltd. engineers and builds standard and special cord sets for any application. Proved dependability.

Most comprehensive stock of moulds and dies in existence for production of electronic cords and assemblies.

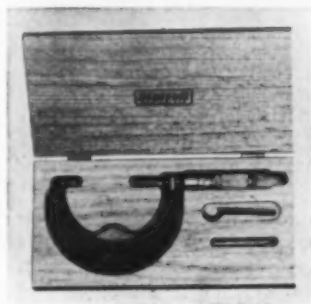
When you bring your cord problems to us you get the experience of the vast Essex Wire organization, plus integrated production of every component from wire bar to finished assembly. Write for details, explaining application.

WIRE SX PRODUCTS

CORDS LTD.
DIVISION ESSEX WIRE CORPORATION
121 DODGE STREET, DEKALB, ILLINOIS

For more details circle NED-8867 on enclosed inquiry slip

CRANKSHAFT MICROMETER
has 1½ to 2½-in. range in 1/1000's



Capable of handling most crankshaft diameters in its 3-in. frame with range from 1½ to 2½ in., this No. 436 micrometer has reading point on under side of thimble, making it visible while measuring. Frame is finished in smooth black enamel and thimble is stamped with decimal equivalents. Rust-resistant noglare stain chrome finish on sleeve and thimble make markings stand out. Spindle is one-piece construction with threads hardened, stabilized and ground from solid. Instrument is furnished with ratchet stop and lock nut. Metric model is available. Made by **L. S. Starrett Co.**, Dept. ED, Athol, Mass.

For more details circle NED-8868 on enclosed inquiry slip

INSECTICIDE DISPENSER
one unit controls 15,000 cu ft

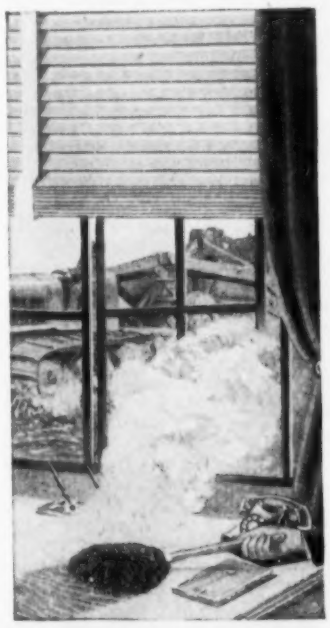
Fine vapors of insecticide are dispensed into air for control of mosquitoes, flies and other insects by Secto-Aire, a thermostatically controlled unit. It is harmless to humans and warm blooded animals and food. Economical-to-operate device uses 50 w for 1 minute out of every 5 minutes. Insecticide is stainless and odorless. One unit will effectively control a 15,000 cu ft area. Made by **Kay Electric Co.**, 555 MacDonald Ave., Brooklyn, N. Y.

For more details circle NED-8869 on enclosed inquiry slip

PHOTO FLASH HOLDER
system uses 22½-v batteries

Through use of one or two 22½-v batteries plus two condensers, Kodak Ektalux Flashholder provides efficient means of taking pictures with flash lamps. Batteries, which normally are exhausted quite rapidly, usually last 1 year or more when used with battery-condenser systems. Another advantage is positive synchronization even when battery power is low. Up to seven flash lamps can be synchronized over 100 or more feet of cable. Extension units are compact and easily fit into cramped quarters. Designed for ready disassembly, units can be nested for storage and carrying convenience. Standard, Polaroid Land and press camera brackets are available. Made by **Eastman Kodak Co.**, Dept. E, 343 State St., Rochester 4, N. Y.

For more details circle NED-8870 on enclosed inquiry slip



Fuller's "Hungry" Duster Gobbles up Dust!

You will find a Fuller Dry Duster more economical than dust cloths. Fuller Dusters are built of our special cotton yarn—whose millions of tiny fibrils reach out and hold (instead of scattering) huge quantities of dust.

In Fuller Dry Dusting Mops you will also find this special yarn, developed by our laboratory and produced under its supervision.

Fuller — SHIPPED FROM NINE DISTRIBUTION POINTS

INDUSTRIAL DIVISION FULLER BRUSH

At home... in business, too

3530 MAIN STREET
HARTFORD 2, CONN.

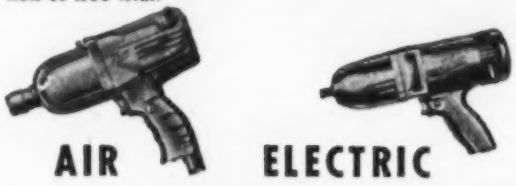
IN CANADA: FULLER BRUSH CO., LTD., HAMILTON, ONT.

For more details circle NED-8871 on enclosed inquiry slip

GET THE *Thor* STORY
ON PORTABLE POWER

IMPACT WRENCHES
Write for Catalog P-1

No matter which type of impact wrench you prefer – air or electric – Thor's amazing impact power is available in both types. Write or call your Thor branch for demonstration or free trial.



AIR ELECTRIC

Belt Sanders
Bench Grinders
Drills
Grinders
Hammers
Impact Wrenches

Thor PORTABLE POWER TOOLS

Nibblers
Nut Setters
Polishers
Sanders
Saws
Screwdrivers

INDEPENDENT PNEUMATIC TOOL CO., AURORA, ILL.

For more details circle NED-8872 on enclosed inquiry slip

Why – THE ROLLAWAY SKID AND JACK SYSTEM *for efficient?* MATERIALS HANDLING

Because...

- *It is Economical*
  One jack and ten skids cost no more than one hand lift truck and two skids or six four wheel warehouse trucks. And there is very little maintenance.
- *It Saves Floor Space*
  Its right angle steer provides shortest turning radius to maneuver in the narrowest aisles and around machinery. Jack can be engaged or removed with only 18" of clearance. Skids may be stored on end or stacked, when not in use.
- *It is Safe*
  Loaded skids will remain static on inclines or road truck bed. Balanced handle always up out of the way when load is elevated. Disconnecting action is foolproof.
- *It Saves Time*
  Due to low cost of jack, it is convenient to have one at several handy locations.
- *It is Versatile*
  Four standard widths of skids, with lengths to suit your load.
- *It Has Been Proven*
  Rollaway semi-live skids and jacks have been time tested in modern plants the world over. It has all the features required for quality performance.

Write for descriptive bulletin

LANHAM
FOR LIFETIME

THE LANHAM COMPANY
MAGNOLIA & 12TH STS. • LOUISVILLE, KENTUCKY

For more details circle NED-8873 on enclosed inquiry slip

LAZY LIQUIDS

KEPT ON THE MOVE

Maybe it is Asphalt, Rosin, Wax, Sulphur, Syrup or some other LAZY Liquid. Heat them and they flow more readily. Heat the pipes that convey them also—and they continue to flow.

Steam, Hot Water, or Hot Oil circulated through Jacketed Piping and Fittings will do just that. Keep these otherwise lazy liquids on the move.

Parks-Cramer Jacketed Pipes come in sizes 1¼", 1½", 2", 3", and 4"—inside dimensions. Jacketed fittings include: two- and three-way Plug Cocks, Tees, 90° and 45° Elbows, Crosses, Expansion Joints and Relief Valves.

Parks-Cramer Company
ENGINEERS and CONTRACTORS
Fitchburg, Massachusetts

For more details circle NED-8874 on enclosed inquiry slip

Generalift ★★★★★ PALLET BOXES

SEND FOR FREE BOOKLET TODAY

GENERAL BOX COMPANY..
★★★★★ engineered shipping containers

GENERAL OFFICES: Illinois & Dearborn Sts., Chicago 10, Ill.
DISTRICT OFFICES AND PLANTS: Cincinnati, Denville, N.J., Detroit, East St. Louis, Kansas City, Louisville, Milwaukee, Sheboygan, Winchendon. Continental Box Company, Inc., Houston, Dallas. General Box Company of Mississippi, Meridian, Miss.

For more details circle NED-8875 on enclosed inquiry slip

Your Entire Stock of Drills... Seen at a glance

HUOT DRILL DISPENSER

for

• TOOL CRIBS • STOCK ROOMS • MACHINE SHOPS

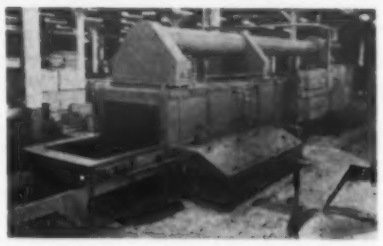
Saves Time hunting through stacks of packaged drills. Compartments hold a gross of small sizes—a dozen or more of the larger ones. Raised letters on easy sliding drawers . . . hammerlin gray baked enamel finish . . . 14½"x7¼"x7¼".

Write for Circular
Model No. 1: Fractional drills 1/16" to ½"
Model No. 2: Number drills 1 to 60
Model No. 3: Letter drills A to Z

HUOT MFG. CO. 571 NORTH WHEELER ST. PAUL 5, MINNESOTA

For more details circle NED-8876 on enclosed inquiry slip

RUSTPROOFING MACHINE
adapts to various sized work



Rustproofing machine, model CT-RP, features capacity of 500 sq ft of conveyor space per hour. Machine sprays work with rust preventive; dries it in built-in explosionproof infrared oven; then cools it to permit immediate handling. Added safety features include automatic CO_2 system and fully electric operating controls. Rotating brush and detergent spray keep continuous conveyor clean, minimizing need to stop machine. Further versatility is machine's adaptability to various shapes and sizes of work. Made by **Industrial Washing Machine Corp.**, Rust-Proofing Div., 292 Burnet St., New Brunswick, N. J.

For more details circle NED-8877 on enclosed inquiry slip

STAPLING GUN
heavy duty unit for one-hand use

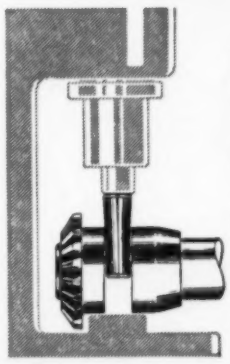
Although pocket-sized and operated by one hand, this heavy duty stapling gun is capable of fastening metal or fiber shipping tags to export boxes. Operator holds tag in place with one hand, then shoots staples as fast as firing automatic pistol. Staples are five times normal size and grip wood with clinch-locking feature. Gun can also be used for stapling shipping list protectors, lining of export boxes and railroad box cars and car identification tags. Made by **Heller Co.**, 2153-E Superior Ave., Cleveland 14, O.

For more details circle NED-8878 on enclosed inquiry slip

METALLIZING SPRAY GUNS
operate semiautomatically

Intended for hand-held operation, yet developing high spraying speeds, two Metco metallizing guns use jet siphon principle in gas head which automatically compensates for variations in gas pressure and provides unvarying flame to produce uniform coatings. They incorporate automatic control of wire feed. Type 4E is designed to spray all wires from 20 B & S gage to ⅛-in. in any metal. Type 5E gun is for high speed spraying of softer metals, such as zinc and aluminum. It sprays 3/16-in. wire and will deposit as much as 55 lb of zinc per hour. Guns can be mounted for use on lathe or other machine, or held in hand, as weight is 4 lb 12 oz. Made by **Metallizing Engineering Co.**, Dept. NED, 38-14 30th St., Long Island City 1, N. Y.

For more details circle NED-8879 on enclosed inquiry slip



Here's the low-cost way to eliminate set screws and taper pins

Rollpin self-locking fasteners replace taper pins or set screws . . . simplify assemblies . . . and reduce production costs by eliminating taper reaming and threading operations.

These slotted, tubular steel drive pins with chamfered ends can be easily inserted into production-drilled holes by automatic or hand methods. Their constant spring tension locks them—vibration-proof—against the wall of the hole.

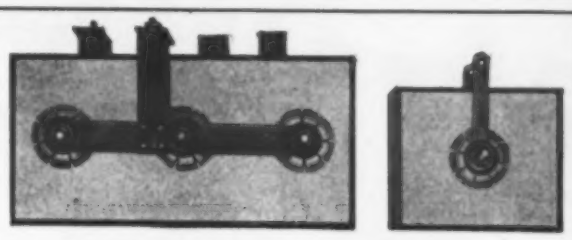
Rollpins slash production time and provide a neat flush assembly. Simplifying field service problems, they can be removed with a hand punch and re-inserted with a hammer . . . can be used over and over again.

Redesign pin fastenings now. Write for free sample package and complete data on these and other Rollpin applications.

ROLLPIN **ELASTIC STOP NUT CORP. OF AMERICA** ESNA

2330 Vauxhall Road, Union, N. J.

For more details circle NED-8880 on enclosed inquiry slip



SYNTRON
SELENIUM RECTIFIERS

1" sq. to 12" x 16" cells—in stacks, or single cells for customer assembly.

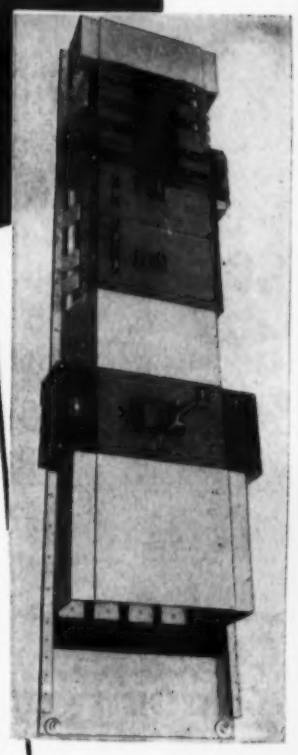
Made by a new process to a uniform, high quality, for continuous, heavy-duty service.

Write for literature

SYNTRON CO.
405 Lexington Ave. Homer City, Pa.

For more details circle NED-8881 on enclosed inquiry slip

PICK YOUR CIRCUIT BREAKER FROM THE COMPLETE I-T-E LINE



125-600 volts a-c
125-250 volts d-c
10-600 amperes continuous
5000-25,000 amperes interrupting
1, 2, or 3 pole

I-T-E has a *full line* of molded case circuit breakers to meet your every need. Safe, dependable overcurrent protection is provided for every installation. Specify these breakers in panelboards, switchboards, load centers, and individual enclosures. Feature for feature, you get more when you order I-T-E Molded Case Circuit Breakers.

100 ampere F frame breaker in NEMA Type 1-A enclosure

For help in choosing the right circuit breaker from the full I-T-E line, write for Bulletin 5004D and Catalog Section 5000. Or call your local I-T-E representative. He will be glad to help you.

Modern, efficient I-T-E Molded Case Circuit Breakers offer you these benefits:

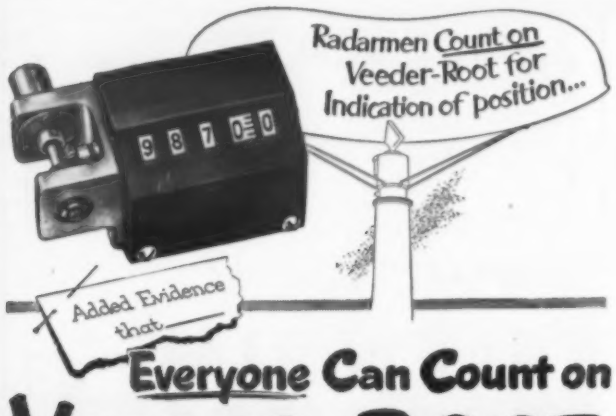
1. Greater clearance between phases
2. Enclosed terminals for greater safety
3. Uniform construction on 1½" pole centers
4. Time saving, extra-safe drawout terminals
5. External instantaneous trip adjustment
6. Internally mounted special features

I-T-E R&IE **MOLDED CASE CIRCUIT BREAKERS**

Approved by Underwriters' Laboratories, Inc.

I-T-E CIRCUIT BREAKER COMPANY
19th and Hamilton Streets
Philadelphia 30, Pa.

For more details circle NED-8882 on enclosed inquiry slip



Everyone Can Count on

VEEDER-ROOT

LONG-RANGE EYES are what you really have here, in these Veeder-Root High-Speed Yardage Counters.
And anything else you need in the way of *Count*rol, you can get in standard or special Veeder-Root Counters, mechanically or electrically operated . . . deliveries depending on defense-work ratings, of course.
Just get in touch with the world's largest manufacturers of counting and computing devices . . .

VEEDER-ROOT INC., Hartford 2, Conn.

For more details circle NED-8883 on enclosed inquiry slip

NO need to say

"OUR LINE IS DOWN"

GET THEM FROM

CAMCAR

SPECIALS • SEMS • THREAD CUTTERS
AIRCRAFT • PHILLIPS HEAD SCREWS
HEX HEAD SHEET METAL SCREWS

In All Cold-Heading Materials

Camcar's business is supply!

We do make all kinds of special metal parts, fasteners and screws — of steel, brass, bronze, aluminum, stainless and all cold-heading materials — tested for strength, ductility, non-corrosion and practically all conditions necessary to give you service, cost and quality advantages.

But if you don't have these parts when you need them for assembly, none of these advantages will be important to you.

That's why we say, "Consider Supply First". Hundreds of Camcar Specialists are working every day for this one purpose . . . to keep assembly lines open . . . to demonstrate to you that there's never a need to say, "Our Line Is Down".

When you need Fasteners or Special Metal Parts . . .

Telephone 5-9451 or Teletype RK-53

CAMCAR SCREW & MFG. CORP.

601 Eighteenth Avenue, Rockford, Illinois

"Production-Designed FOR YOUR ASSEMBLY LINE"

For more details circle NED-8884 on enclosed inquiry slip

SAFETY FEEDING TONGS
for press and shear operations

Tapered nose of lightweight magnesium safety tongs for press and shear feeding operations facilitates handling of small stock. The 2½-oz tongs are made of alloyed magnesium and will crush if accidentally caught within die opening, thus eliminating possibility of die damage. They are designed for rigidity and long life. Made by **Magline, Inc.**, P. O. Box 346, Pinconning, Mich.

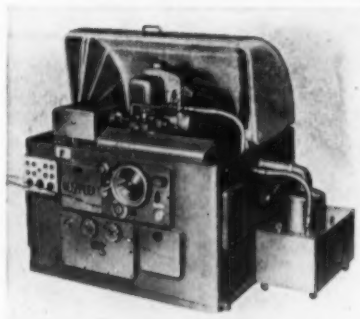
For more details circle NED-8885 on enclosed inquiry slip

WAY PROTECTOR
mounts easily on machine tools

Ways are protected from damage by chips, dirt or abrasives when this way protector is mounted on milling machines, boring machines, planers and surface grinders. This accordion-like attachment is mounted permanently over exposed ways, and it folds automatically as bed moves in either direction. On a 20-ft long way, device requires 24-in. mounting space on end of upper bed. It is fabricated of DuPont Fairprene which is resistant to oil, dirt and abrasives. Made by **A & A Mfg. Co.**, Dept. 14, 2017 W. Clybourn St., Milwaukee 3, Wis.

For more details circle NED-8886 on enclosed inquiry slip

AUTOMATIC THREAD GRINDER
designed for high production rate



Made by Reishauer Tool Works, Ltd., Switzerland, type RAG automatic thread grinding machine produces very small and medium threads on straight or spiral fluted taps, micrometer spindles, worms, thread gages, screws and studs. Operating on longitudinal feed principle, machine employs single thread grinding wheel which provides maximum accuracy for grinding small pitches. Wheel, which is aligned automatically during return stroke of work table, grinds to size. Grinding slide, carrying the grinding head which can be set in helix angle, performs movements for feed and relief machining. Longitudinal movement of work piece corresponding to desired pitch is accomplished by table slide. Distributed by **Cosa Corp.**, 616-624 Chrysler Bldg., New York 17, N. Y.

For more details circle NED-8887 on enclosed inquiry slip

TAC does what no other tool can do!

AT LAST! AN OPEN-END RATCHET WRENCH — the world's first true *universal* wrench. A patented design for connections on tubing, rods, piping, conduit, studs, etc. Sixty-four socket sizes from ⅜" to 4". Smallest effective ratcheting arc yet — 5° to 7½°. TAC will also do every job any ordinary ratchet wrench will do: one TAC set replaces literally dozens of single-purpose hand tools.

makers of advanced tools for industry

TAC

TAC is the registered trademark of

TUBING APPLIANCE CO.
7112 South Victoria • 10321 Anza Ave. • Los Angeles, Calif.

For more details circle NED-8888 on enclosed inquiry slip

Hardens and Draws 4 Chisels for 1c

Rate: 1 every 10 seconds

YOU CAN ENJOY low costs like these in your shop by using versatile Allis-Chalmers Induction Heaters. The same heater can braze, solder, anneal, case, and through harden by simply changing the work coil.

Work coils are easy to install. When coils are changed, there's no need for additional output transformers (needed on most units), which require special shielding and skilled help to install.

Low cost plus versatility makes the unit a welcome addition in many job shops. Call your nearby Allis-Chalmers Sales Office and find out what Induction Heat — the A-C way — can do to your production costs, or write Allis-Chalmers, Milwaukee 1, Wisconsin. A-3243

ALLIS-CHALMERS

For more details circle NED-8889 on enclosed inquiry slip

Motch & Merryweather

DELUXE Triple-Chip SLITTING AND SLOTTING SAWS...

More than worth the Difference!

Triple-Chip saw with Dual Drive for greater rigidity and protection for the saw.

Triple-Chip is our deluxe line of saws that gives you higher production with accuracy and longer service. Let us prove to you how Triple-Chip slitting and slotting saws will save you money.

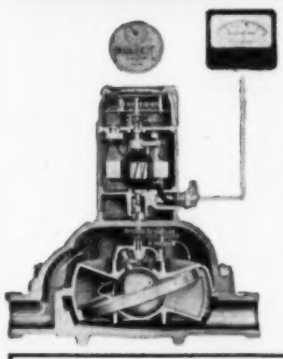
Your local dealer is equipped to service you quickly.

THE MOTCH & MERRYWEATHER MACHINERY CO.
PENTON BUILDING • CLEVELAND 13, OHIO

COMMAND OUR UNPARALLELED EXPERIENCE IN CIRCULAR SAWING . . .

For more details circle NED-8890 on enclosed inquiry slip

Remote indication and control of liquid flow



Hays VERIFLOW meter accurately measures, indicates, and totals the flow of corrosive and hard-to-meter liquids without using weigh tanks, orifice plates, or gage sticks.
With the Hays VERITROL you simply set a knob at the rate of flow desired . . . then, the VERITROL *controls* the flow of liquid at that set-rate.

for corrosive liquids
Acetic Acid, Aluminum Potassium Sulphate, Ammonia, Calcium Compounds, Carbolic Acid, Formaldehyde, Fruit and Vegetable Juices, Hydrogen Peroxide, Phosphoric Acid, Potassium Hydroxide, Sodium Compounds, Sulphuric Acid (concentrated), Stearic Acid, and many others

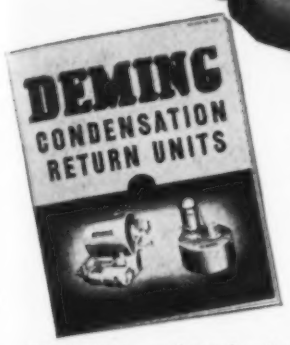
Send for a complete description of Hays Veriflow Meter and Veritrol. Bulletin 48-766

THE HAYS CORPORATION
MICHIGAN CITY 15, INDIANA

For more details circle NED-8891 on enclosed inquiry slip

NEW

"MOTOR-MOUNT" CONDENSATION RETURN UNITS



The new units are equipped with Deming "MOTOR-MOUNT" centrifugal pumps. Motor has standard NEMA type "C" mounting flange and is furnished in single phase, two or three phase, or direct current, as specified.

The complete line includes Single Units and Duplex Units in a wide range of sizes for taking care of 2,000 to 40,000 square feet of radiation. (The Single Unit type is illustrated.)

Send for illustrated BULLETIN NO. 4400 which includes performance tables of capacities, pressures and other information about Deming "MOTOR-MOUNT" Condensation Return Units.

The Deming Company, 520 Broadway, Salem, Ohio

For more details circle **NED-8892** on enclosed inquiry slip

VERSATILE *Pocket Size* INSTRUMENTS

—for maintenance

—for product testing

Extremely compact, yet packed with values for broad flexibility in service, these popular WESTON testers are favorites for checking electrical components . . . for production line testing . . . and for final inspections. Ideal for maintenance, too, because they offer true WESTON dependability and ruggedness in convenient size. Available now in limited quantities through your local WESTON representative, or, WESTON Electrical Instrument Corporation, 615 Frelinghuysen Avenue, Newark 5, New Jersey.

VOLT-OHMMETER—MODEL 564
Ranges—3/30/300/600 volts d-c (1000 ohms per volt).
Resistance—Full scale 1000/10,000/100,000/1,000,000 ohms.

VOLT-OHM-MILLIAMMETER—MODEL 697
Ranges—0-7.5/15/150/750 a-c and d-c (1000 ohms per volt).
Current—0-7.5/75 milliamperes d-c.
Resistance—Full scale 5000/500,000 ohms. Center scale 35/3500.

OHMMETERS—MODEL 689
Ranges—Type 1-E—double range 0-5000 and 50,000 ohms, full scale.
Type 1-F—double range 0-10 and 0-1000 ohms, full scale.

WESTON *Instruments*

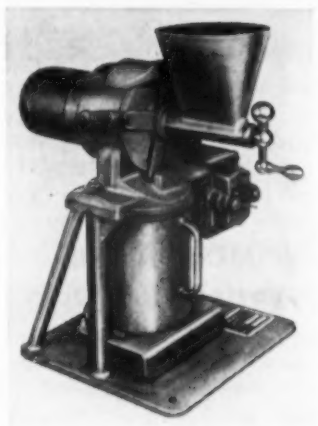
For more details circle **NED-8893** on enclosed inquiry slip

DRILL & CARBIDE GRINDER quadrant sets clearance angles

Improvements incorporated in Sterling drill and carbide grinder include simplified adjustment to compensate for grinding wheel wear, permanent mounting of diamond wheel dresser on drill grinding wheel guard and graduated quadrant on table which makes it possible to set clearance angles accurately. When not in use, diamond wheel dresser swings out of way. Light fixture on flexible tubing can be positioned at either end of machine which also grinds three-lip core drills. Made by **McDonough Mfg. Co.**, 1550 Galloway St., Eau Claire, Wis. Wis.

For more details circle **NED-8894** on enclosed inquiry slip

CRUSHERS & PULVERIZERS two models are particularly suited for nonabrasive laboratory use



Developed for coal sample preparation, model 2-B and 4-A laboratory sample crushers are capable of handling any nonabrasive material. Model 2-B has a capacity of 1000 lb of 2-in. nut and screenings per hour, using 3/16-in. diameter screen. Model 4-A, for 6-in. egg and smaller, has capacity of 2500 lb per hour when using 3/16-in. screen. Crushers are offered with 6 and 35 lb sample containers which fit tightly into base. Standard screen sizes available are ⅛, 3/16, ¼, ⅜ and ½-in.

Model 3-A pulverizer (illustrated) has aluminum sample cup which holds 3 to 5 lb, depending upon material. Screen plates have 0.024, 0.031, 0.039, 0.0625 and 0.0937-in. diameter holes. Crushing chamber, hammers and screen plate can be quickly brush-cleaned after each sample is ground by swinging hinged front open. Pulverizer will grind 20-mesh material into small micron sizes. Both types of machines made by **Robert Holmes & Bros., Inc.**, Dept. G-1, Danville, Ill.

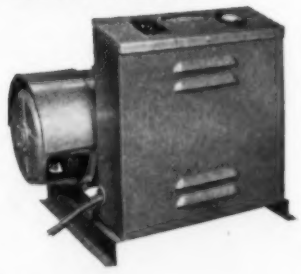
For more details circle **NED-8895** on enclosed inquiry slip

DO YOU KNOW? Flat ground Red Streak die steel is now available in 36-in. long bars in 35 standard stock sizes from ½ x 2 in. up to 1½ x 10 in. Of oil-hardening nondeforming type, die steel is uniformly annealed and easy to saw, file and machine. A handy wall chart giving standard stock sizes will be sent free by Simonds Saw & Steel Co., Dept. A, 470 Main St., Fitchburg, Mass.

For more details circle **NED-8896** on enclosed inquiry slip

Consult Hertner for battery charging equipment for driver ride trucks or motorized hand trucks

"KX" Charg-O-Matic Line



Single or multiple circuit models are available for charging driver-ride electric trucks. The single standardized circuit line is available in 13 models for charging lead acid batteries and 7 models for charging Edison batteries. For central station charging the unitized switchboard is provided in sections with a motor generator set for charging two or more batteries simultaneously.

"HX" Charg-O-Matic Line

Single or four circuit models are available for charging motorized hand truck batteries—a series for lead-acid batteries and a series for Edison batteries.

Double Duty Charge Control

An accessory for automatically charging two batteries from either an "HX" or "KX" single circuit battery charger.

Special-built Battery Chargers

Where battery charging equipment is needed to do a special job, Hertner engineers and modern plant facilities are available to produce a charger to fit any requirement.

Standard Models for immediate shipment. For complete information consult your electric truck or Hertner representative, or write direct.

THE HERTNER ELECTRIC COMPANY
12690 Elmwood Avenue • Cleveland 11, Ohio
A General Precision Equipment Corporation Subsidiary

Motors • Motor-Generators • Generator Sets • Representatives in Principal Cities

For more details circle **NED-8897** on enclosed inquiry slip

MOTO-TRUC'S MODEL PAL

- REDUCES COSTS
- SAVES MAN HOURS
- SPEEDS PRODUCTION

Moto-Truc's 6 Basic Models cover any problem in the "Walkie" field, whether Pallet, Platform or Hi-lift.

Write for Bulletin No. 51 Today

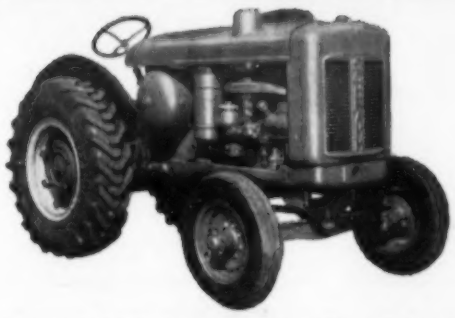
In one of the nation's largest warehouses, Moto-Truc's Model PALS now do the work of many hands, adding 1/3 more storage space and speeding up "In and out" traffic.

A "twist of the wrist" does it.

THE MOTO-TRUC CO.
1953 E. 59th ST., CLEVELAND 3, OHIO
PALLET, PLATFORM AND HI-LIFT TRUCKS

For more details circle **NED-8898** on enclosed inquiry slip

Pneumatractor



The Schramm Model 105 Pneumatractor is a self-propelled tractor-compressor combination that fills many requirements, and will . . .

- **PUSH . . . .** Anything a Wheel Tractor will Push
- **PULL . . . .** Anything a Wheel Tractor will Pull
- **POWER . . .** Anything a Wheel Tractor will Power
- **PROVIDE AIR . . .** For Every Compressed Air Job

Write for Bulletin NEU-51

SCHRAMM INC. THE COMPRESSOR PEOPLE
WEST CHESTER PENNSYLVANIA

For more details circle **NED-8899** on enclosed inquiry slip

NEW SLIDE CHART

on *Carpenter* Stainless Steels

gives you information to help you select the proper Stainless for

Drawing	Machining
Forging	Riveting
Heading	Roll Forming, etc.

This new Carpenter chart also contains valuable data on the physical constants of many Stainless grades. For your copy, just return the coupon.

THE CARPENTER STEEL COMPANY
118 W. Bern St., Reading, Pa.

Please send me a copy of the new Carpenter Stainless Slide Chart.

NAME _____ TITLE _____
(Please Print)
COMPANY _____
ADDRESS _____
CITY _____ ZONE _____ STATE _____

For more details circle **NED-8900** on enclosed inquiry slip

SAVE TIME . . . Faster production and lower labor costs
SAVE AIR . . . Reduce air consumption 92 percent
SAVE DIES . . . No damage to dies due to clogging
SAVE HANDS . . . Keep operators' hands and fingers out of danger zone
SAVE MONEY . . . Insurance premiums are lower when accidents are reduced.

QUICKLY INSTALLED—Littell Air Blast Valves can be installed on any make or size press in only a few minutes.

F. J. Littell MACHINE CO. AIR DIVISION
4169 RAVENSWOOD AVE., CHICAGO 13, ILL.
— District Offices: Detroit and Cleveland —
Write for Catalog

For more details circle NED-8901 on enclosed inquiry slip

SPEED HAND-LABELING ON HARD-TO-LABEL JOBS with Mystik Self-Stik LABELS

SPEED PRODUCTION—No moistening. Stick instantly.

EASY APPLICATION on hard-to-reach, hard-to-label surfaces.

FLEXIBLE and stretchable for curved or uneven surfaces.

PERMANENT—Resistant to stain, moisture, scuffing, delamination. Removable, if desired, without staining.

BEAUTIFUL—Finest color printing; die-cut; embossed; varnished or acetate laminated.

The outstanding qualities of MYSTIK LABELS are due to rubber-saturated stock and the strongly bonded rubber adhesive, providing strength, flexibility, toughness, strong adhesion and ease of handling. Write for full information and samples.

CHICAGO SHOW PRINTING COMPANY
CHICAGO • NEW YORK

2657 NORTH KILDARE • CHICAGO 39

For more details circle NED-8902 on enclosed inquiry slip

Indispensable . . .

when converting part of plant to war production

HEIN-WERNER HYDRAULIC JACKS

. . . make lifting and pushing jobs easier

Hein-Werner HYDRAULIC JACKS

Made in models of 3, 5, 8, 12, 20, 30, 50 and 100 tons capacity. Hein-Werner also makes "Push and Pull" Hydraulic Jacks of 4, 10, 20 tons capacity. See your industrial supply distributor, or write us.

HEIN-WERNER CORPORATION • WAUKESHA • WIS.

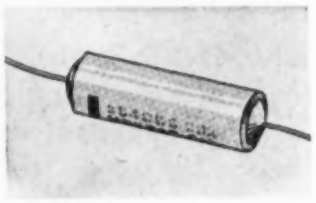
For more details circle NED-8903 on enclosed inquiry slip

SELENIUM RECTIFIERS
custom units have high capacities

Selenium rectifier power conversion units with extra large selenium rectifier cells made by vacuum process are being offered in high current and voltage capacities. Custom-made units for conversion of alternating current into direct current are offered in compact 50-kw sizes and larger. Utilizing the larger cells permits use of fewer parallel elements for a given direct current output and at same time keeps weight to minimum. Made by **Syntron Co.**, 405 Lexington Ave., Homer City, Pa.

For more details circle NED-8904 on enclosed inquiry slip

MOLDED CAPACITOR
available in two types, all sizes



Section of completely molded capacitor is in exact center from one end to the other for highest possible dielectric strength. Added features are good over-all insulation and high humidity resistance. Capacitor is available in all sizes and two types—standard type PM with paper dielectric and mineral oil impregnant for temperatures up to 85° C and type TM with thermofilm dielectric for temperatures up to 150° C. Made by **Dumont Electric Corp.**, 309 Dykman St., New York 34, N. Y.

For more details circle NED-8905 on enclosed inquiry slip

HYDRAULIC PUMP—HOMOGENIZER
sanitary unit for various products

Complete hermetic separation of actuating mechanism and material being processed is a feature of Hydropulse high pressure hydraulic pump and homogenizer. Suction and pressure are obtained alternately by breathing pulsators actuated by hydraulic pistons. Driving mechanism is bathed in oil. Four models, each having maximum pressure of 3000 psi, have displacements of 30, 50, 100 and 150 gph. Unit can run dry any length of time without damage. It will prime itself dry and purge all air automatically. All parts in contact with pumped liquid are 18-8 stainless steel, except for synthetic rubber pulsator. Made by **Scott & Williams, Inc.**, Pioneer Div., Empire State Bldg., 350 Fifth Ave., New York 1, N. Y.

For more details circle NED-8906 on enclosed inquiry slip

Aeroquip

FLEXIBLE HOSE LINES CUT COSTS

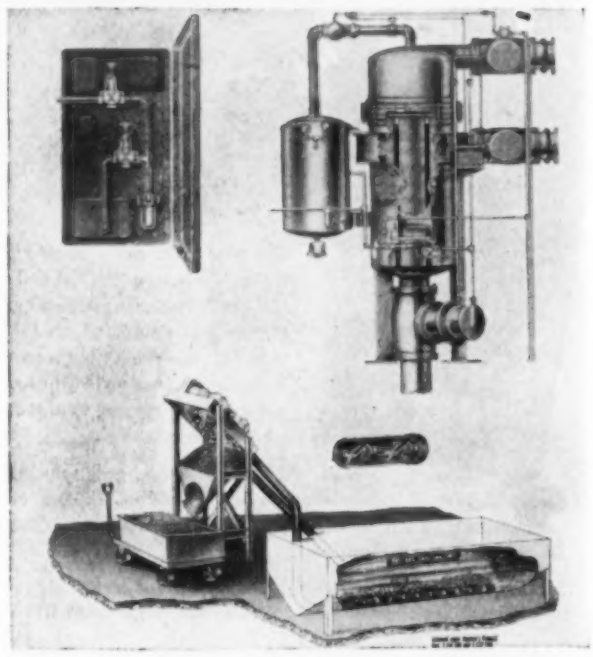
The "Aeroquip Idea" saves time, saves money, reduces inventory. To make your own Hose Lines, simply cut bulk hose to the required length and attach an Aeroquip reusable fitting.

AEROQUIP CORPORATION
JACKSON, MICHIGAN

FLEXIBLE HOSE LINES • DETACHABLE, REUSABLE FITTINGS • SELF-SEALING COUPLINGS • BREAKAWAY COUPLINGS • HYDRAULISCOPE
AEROQUIP PRODUCTS ARE FULLY PROTECTED BY PATENTS IN U.S.A. AND ABROAD

For more details circle NED-8907 on enclosed inquiry slip

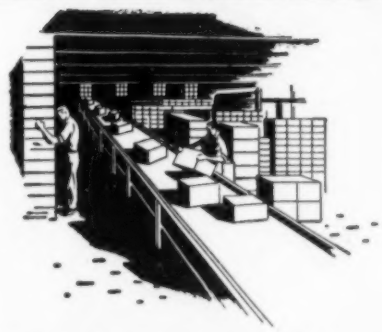
AUTOMATIC COOLANT CLARIFIER FOR [illegible]
increases tool life, improve[illegible]



Newly designed Houdaille Automatic Clarifier System, which removes abrasives and other solid contaminants from machine tool coolants—transports waste to a disposal

For more details circle NED-[illegible]

Mathews Bel[illegible]



"ENGINE[illegible]RED

● One of the [illegible] conveyin[illegible] equi[illegible] Mathews [illegible]onve[illegible] The c[illegible]plete[illegible] Mathew[illegible] buil[illegible] following[illegible]

ROLLER CONVEYERS • CHAIN CONVEYERS • LIVE RO[illegible]R CON[illegible] CONVEYERS • PORTABLE CONVEYERS • ROLL[illegible] SPIRA[illegible] SPECIAL CONVE[illegible]G MA[illegible]

MATHEW[illegible]
MATHEWS CONVEYER COMPA[illegible]
MATHEWS CONVEYER COMPA[illegible]
MATHEWS CONVEYER COMPA[illegible]TD.
Engineering Offices or Sales Agencies in [illegible]incip[illegible]

For more details circle NED-[illegible] on en[illegible]

Give production a big boost..

with the UNION METAL *Work-O-Matic Box and Stand

ORDINARY, tiring waste motion methods retard production, add plenty to final cost! In contrast, the new, revolutionary Work-O-Matic drop-bottom box and positioning stand has added up to 50% more production per man per machine by uninterrupted feeding of parts-in-process at comfortable, working level. Write for case studies revealing this remarkable record.

What's more, the Work-O-Matic box cuts other handling time and cost to the bone. Used with a fork lift truck, its drop bottom discharges material mechanically, *fast*, into other positioned boxes or elsewhere. Or, it is quickly, easily positioned on the stand . . . again for automatic discharge at work level. Finally, these Work-O-Matic boxes can be tiered to fully utilize air space and make the most of floor areas.

The patented Work-O-Matic box and stand are now boosting production in plant after plant. Get *all* the facts. For descriptive bulletins, write to The Union Metal Manufacturing Company, Canton 5, Ohio.

**Patent No. 2,445,038. Other patents pending.*

UNION METAL
Materials Handling Equipment

For more details circle NED-[illegible] on e[illegible]

FOR LARGE CENTRAL SYSTEMS
improve product finish, cuts rejects

point—and cleans its own filtering screens in automatically timed cycles, is announced by the Honan-Crane Corporation, Lebanon, Indiana.

Equipment, which removes particles as small as 5 to 10 microns, consists of multiple-screen clarifier (upper right), blowdown tank with conveyor (below), and an automatic control panel (upper left). Contamination, removed from clarifier screens by blowdown action, settles in V-bottomed tank and is automatically removed to disposal point by a tube-enclosed Houdaille chain conveyor built into the tank. Liquid from blowdown tank is returned to clarifier so that little or none is lost.

System is specifically designed for plant operations involving large numbers of cutting and grinding tools served by a central coolant system, and may be used for clarification of mineral oil or soluble oil coolants. By keeping coolant free from abrasives and contamination, the Houdaille Automatic Clarifier System increases tool life, provides better product finish with fewer rejects, and extends coolant life substantially. Eliminates need for individual coolant pumps and motors on machine tools. Eliminates labor required to clean individual sumps and lines.

Houdaille Automatic Clarifier Systems are built to provide flow rates up to 1000 GPM; the installation of several units in a central system allows an unlimited volume of liquid to be handled. Made by **Honan-Crane Corp.**, subsidiary of **Houdaille-Hershey Corp.**, 405 Wabash Ave., Lebanon, Indiana. **Advt.**

▲ For more details circle NED-8911 on enclosed inquiry slip ▲

ELECTRODE HOLDER
deeply grooved jaws grip rod

Available in 300 and 500 amp capacities, Caddy type A semi-insulated electrode holder features cable connected by Cadweld process for solid copper circuit from welding machine to holder. Primary safety features include deeply grooved jaws, handle-enclosed spring assembly which exerts uniform pressure when inserting or ejecting electrodes, hand-guard that wards off spatter, arc and reflected heat, and channel construction of body for greater heat dissipation. Large hinge pin minimizes play in tongs after hours of continuous operation. Made by **Erico Products, Inc.**, 2072 E. 61st Place, Cleveland 3, O.

▲ For more details circle NED-8911 on enclosed inquiry slip ▲

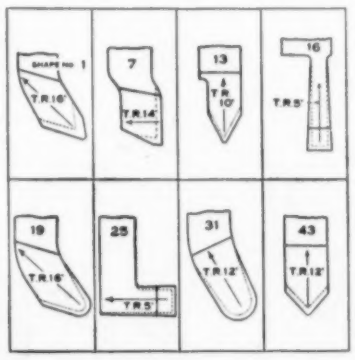
ELECTRIC DRILLS
heavy duty models for metal, wood

Features of six electric drills for heavy duty production drilling in metal and wood include die cast aluminum housing, trigger switch with safety locking device, sealed ball bearings and chuck guard to protect operator's hands. Equipped with three-jaw geared chuck, drills can be supplied in any standard voltage, alternating or direct current, 60 cycles or less. Tools are offered with ¼, 5/16 and ⅜-in. chuck sizes and D-shape and drop handles. Made by **Stanley Works**, Stanley Electric Tools Div., 104 Elm St., New Britain, Conn.

▲ For more details circle NED-8912 on enclosed inquiry slip ▲

HIGH SPEED CUTTING TOOLS
heads and shanks of equal section

Heads of Stag Major high speed tool steel are joined to medium carbon steel shanks of equal section by electric butt welding on line of Superweld cutting tools. Head steel contains 21 per cent tungsten and 13 per cent cobalt. Construction gives long service life and ability to handle high speeds and heavy cutting loads. With head section equal to shank section in most cases, it is possible to change tool shape by grinding. Tools are supplied ready to use. Illustrations show eight of 31 standard shapes available in section sizes from ½-in. square to 2 x 1½ in. with lengths from 4 to 16 in. Custom-made tools are available. Made by **A. Milne & Co.**, Dept. N, 745 Washington St., New York 14, N. Y.



▲ For more details circle NED-8913 on enclosed inquiry slip ▲

Atlas 7" SHAPER

Easier to set up . . . cheaper to operate . . . dependably accurate . . . that's the record of Atlas in thousands of plants.

On any operation within its capacity it will save money.

Atlas was the *first* 7" shaper and *no one yet has matched its sound construction features, performance, or value.* Send for detailed catalog. Compare it feature for feature. See for yourself.

40th YEAR Atlas ATLAS PRESS CO. 1123 N. PITCHER ST. KALAMAZOO, MICHIGAN

▲ For more details circle NED-8915 on enclosed inquiry slip ▲

JOHNSON GP BEARINGS

over 850 stock sizes

HERE'S a money saving tip. Time saving, too. Use Johnson GP (General Purpose) Bearings for 90% of your sleeve bearing needs—for product or for maintenance. Large production runs assure low unit cost—no pattern costs—no special machine setups. Available from distributors' and warehouse stocks from coast to coast. The Johnson Bronze Catalog lists all sizes available.

Write today for your copy

SLEEVE BEARING HEADQUARTERS *Since* 1901

Johnson Bronze

580 SOUTH MILL STREET • NEW CASTLE, PA.

▲ For more details circle NED-8916 on enclosed inquiry slip ▲

Belt Conveyers

"ENGINEERED TO SERVE PRODUCTION"

• One of the many widely applied types of conveying equipment designed and built by Mathews Conveyer Company.

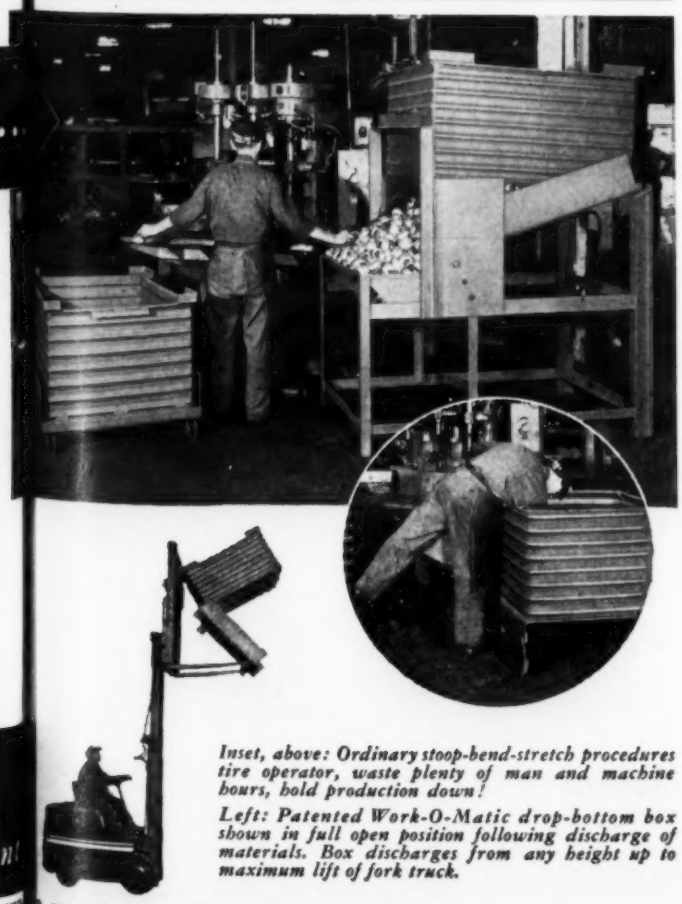
The complete line of Mathews designed—Mathews built Conveyers includes the following:

LIVE ROLLER CONVEYERS • WHEEL CONVEYERS • ELEVATING ROLLER • SPIRAL CONVEYERS • TROLLEY CONVEYERS CONVEYING MACHINERY

MATHEWS CONVEYERS

GENERAL OFFICES
COMPANY . . . . . ELLWOOD CITY, PENNSYLVANIA
PACIFIC COAST DIVISION
COMPANY WEST COAST . . SAN CARLOS, CALIFORNIA
CANADIAN DIVISION
COMPANY LTD. . . . . PORT HOPE, ONTARIO
Cities in Principal American and Canadian Cities

▲ For more details circle NED-8917 on enclosed inquiry slip ▲



Inset, above: Ordinary stoop-bend-stretch procedures tire operator, waste plenty of man and machine hours, hold production down!

Left: Patented Work-O-Matic drop-bottom box shown in full open position following discharge of materials. Box discharges from any height up to maximum lift of fork truck.

▲ For more details circle NED-8918 on enclosed inquiry slip ▲

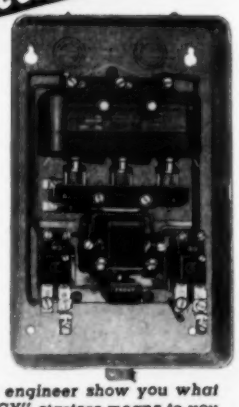
Setting new standards in starter performance

The **CLARK TYPE "CY" AC MAGNETIC MOTOR STARTERS** *with the* **NEW ARC QUENCHING PRINCIPLE**

These rugged magnetic starters provide the extra protection and dependable operation of "Mill-Type" heavy-duty construction and design.

- No tools needed to inspect contacts. Components easily removed.
- Melting alloy-type overload relays.
- Vertical lift clapper type magnet uses no springs.

another CLARK first!



The CLARK TYPE "CY" Starters feature the combined use of strong multi-turn magnetic blowouts with twin-break contacts. They employ an entirely new principle of arc interruption. The blowout coils are concentric with the contacts. The magnetic field quenches the arc either by lengthening or confining it. By forced rotation the arc moves continually from a hot to a cold spot—minimizing burning or pitting of contacts. The solid upper arc shield prevents the accumulation of hot gases between wiring terminals—minimizing phase-to-phase failures.

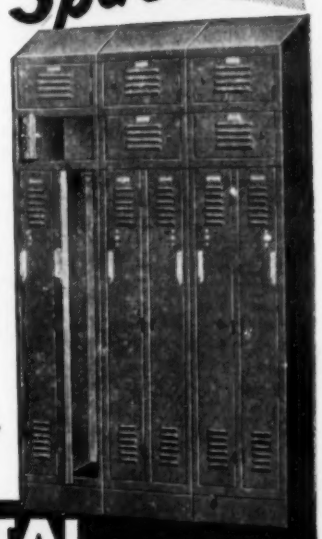
Let a CLARK application engineer show you what this new line of CLARK "CY" starters means to you in increased production and lower maintenance.

THE CLARK CONTROLLER CO.
ENGINEERED ELECTRICAL CONTROL • 1142 EAST 152ND STREET, CLEVELAND 10, OHIO

▲ For more details circle NED-8914 on enclosed inquiry slip ▲

MORE STORAGE in Less Space!

Penco 2 IN 1 STEEL LOCKERS



Penco 2-Person Lockers will double your locker room facilities in the same floor space—or cut non-productive storage space in half! Now—boost employee morale and efficiency—give *all* workers these space-saving, full-size *private* lockers with separate hat and coat compartments.

•

Group of 3 Type 734 lockers with sanitary slope tops and closed bases. Accommodate 6 persons!

PENN METAL Corporation of Penna.
Founded 1869 by L. Lewis Sagendorph
82 OREGON AVENUE, PHILADELPHIA 48, PA.

▲ For more details circle NED-8917 on enclosed inquiry slip ▲

WIRE MESH

Maybe it all *does* look pretty much the same at first glance. But when a firm has been making wire mesh for 70 years man and boy, there's bound to be a little more to it than meets the eye — a little more know-how in engineering and weaving, a little more quality in the product, a little more service and satisfaction for the user.

JELLIFF WIRE MESH is woven in all ductile metals

JELLIFF WIRE MESH is woven in all commercial weaves

JELLIFF WIRE MESH is woven in widths up to 72 inches

JELLIFF WIRE MESH is economical. Every foot runs true to the specifications.

★ ★ ★ ★

JELLIFF WIRE MESH is a quality product and has been for 70 years. You can depend on it.

Write today for full details about JELLIFF WIRE MESH, JELLIFF WIRE MESH PRODUCTS, and JELLIFF'S CONSULTATION SERVICE on wire-mesh engineering. Address Department **11.**

THE C. O. **JELLIFF** MFG. CORP.
DIPPING BASKETS
LEKTROMESH
RESISTANCE WIRE
WIRE MESH PARTS
WIRE CLOTH
STRAINERS + FILTERS
SOUTHPORT CONNECTICUT
WIRE PRODUCTS Jelliff SINCE 1800

For more details circle **NED-8918** on enclosed inquiry slip

With Stuebing Red Arrow Lift Trucks the time and work savings of the lift truck system are available to plants and departments where needs do not warrant expensive power trucks. One Stuebing Red Arrow and twenty rugged, low-cost platforms, easily built in your own plant, give you a lift truck system for any plant or department, small as it may be. And your total investment is only $249.00.

Think of it! For an investment cost of only 26 cents a week you have a lift truck system available at all times! For these few pennies you save the time of three men . . . release them for profitable, productive work.

Let Stuebing engineers show you how to enjoy the savings of the Red Arrow System in your plant.

FREE: Full details on Red Arrow System and blue print of platform. Use coupon below.

Lift Trucks INCORPORATED
2425 Spring Grove Ave.
Cincinnati 14, Ohio

Show me how to install the Red Arrow lift truck system for just $249.00.

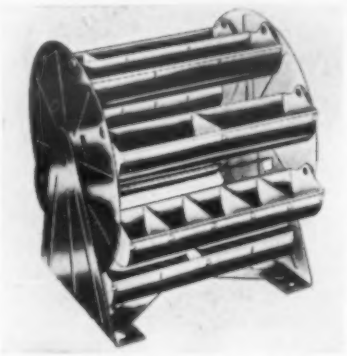
Name_____

Company_____

Address_____

For more details circle **NED-8919** on enclosed inquiry slip

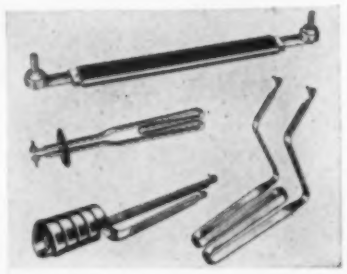
REVOLVING BINS
made with 28 or 46 bins



Large numbers of small parts are kept readily accessible in Kari-All revolving bin holder. Touch of finger brings any one of eight revolving troughs into position for use in assembly, dispensing or storing function. All steel unit is made in 12 x 12 x 10-in. size with 28 bins and 12 x 12 x 18-in. size with 46 bins. Made by **H. J. Mfg. Co.,** Dept. NED, Linwood, Mich.

For more details circle **NED-8920** on enclosed inquiry slip

ELECTRIC HEATING ELEMENTS
sheathed units for various uses

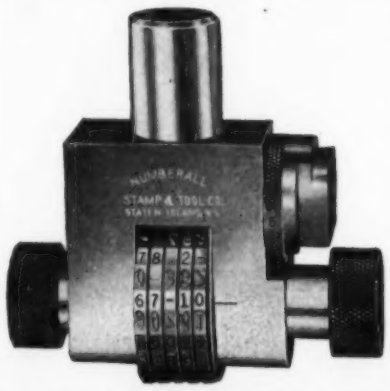


Providing flat surfaces for contact heating and thin section for convection and air flow, these sheathed electric heating elements are for use with kettles, tanks, ovens, dies, driers and for immersion in liquid. Readily bent and formed units are 5/32-in. thick and resistant to moisture and vibration. They can be supplied with self-regulating characteristics where wattage will vary inversely with heated temperature. Variety of terminals is available, or heaters can be brazed into various fittings or provided with hold-down straps. Sheathed with copper and steel, units are offered in heated lengths up to 10 ft and in widths of 1 1/32 and 17/32-in. Made by **Syntron Co.,** 405 Lexington Ave., Homer City, Pa.

For more details circle **NED-8921** on enclosed inquiry slip

SELECTIVE NUMBERING HEADS
offered with 1 to 15 wheels

Stamping operations requiring quick selective numbering can be performed with model 83 numbering head. Wheels are engraved with direct-sight figures at front and set to required character by turning knobs. By pushing knobs right or left, any one of wheels can be engaged. Indexed wheel selector knob serves as stop for every wheel. Up to 11 letters and blank can be supplied on each wheel. Machines can have from 1 to 15 wheels. Made by **Numberall Stamp & Tool Co.,** Dept. 83-43, Huguenot Park, Staten Island 12, N. Y.



For more details circle **NED-8922** on enclosed inquiry slip

SAFE • STRONG • SECURE

Before specifying or purchasing open steel flooring check these exclusive features of Blaw-Knox Grating...

1. SAFETY underfoot at all times assured by twisted steel cross bars.
2. STRENGTH that only rigid "one-piece" Electroforged construction can provide.
3. SECURITY—no wobble, tilt or rattle caused by loose or lost screws, nuts, bolts.
4. EASY to maintain and paint . . . no sharp corners to clog with dirt.
5. MAXIMUM open area for light and air.

For complete data on Blaw-Knox Electroforged Steel Grating and Stair Treads write for Bulletin 2365.

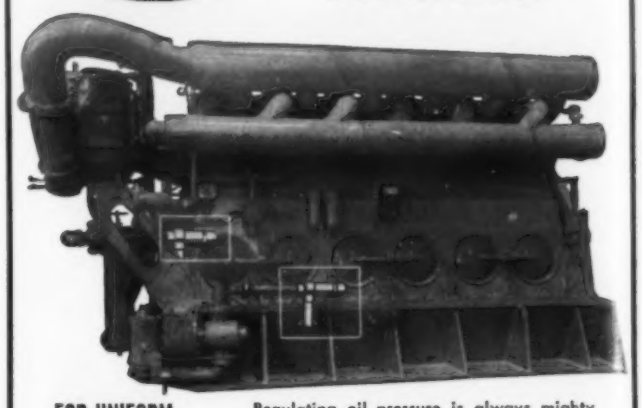
BLAW-KNOX DIVISION OF BLAW-KNOX COMPANY
2068 Farmers Bank Bldg., Pittsburgh 22, Pa.

BLAW-KNOX *Electroforged*®
STEEL GRATING & STAIR TREADS

For more details circle **NED-8923** on enclosed inquiry slip

FULFLO

OIL-RELIEF VALVES
DO A GOOD JOB



FOR UNIFORM, CONSTANT PRESSURE ON ANY SIZE OR TYPE OF INSTALLATION

Regulating oil pressure is always mighty important because the life of your equipment actually depends on it. FULFLO OIL-RELIEF VALVES are installed easily, quickly and just where needed and wanted.

Available in ¼" to 2" standard pipe thread and STD 300 lb. American Flange valves 1" to 2".

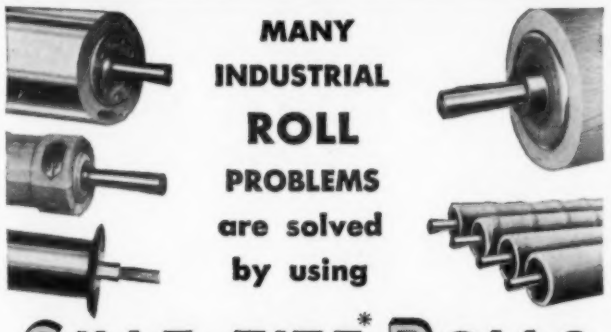
CHATTERLESS

Photo shows Fulflo Valve on a big locomotive Diesel

WRITE on your letterhead for copy of FULFLO MECHANICAL DATA BOOK

THE FULFLO Specialties Co., Inc.
BLANCHESTER, OHIO

For more details circle **NED-8924** on enclosed inquiry slip



MANY INDUSTRIAL ROLL PROBLEMS are solved by using

SHAF-TITE* ROLLS

Many patented constructions provide strongest possible shaft setting. Your choice of many different types and materials—wood, rubber, iron, brass, stainless steel plastic, etc. Whatever your roll problem, put it up to Rodney Hunt.

SEND FOR NEW CATALOG NO. 48
Most complete publication of its kind

Industrial Roll Division
RODNEY HUNT MACHINE CO.
73 Maple Street, Orange, Mass.

*Reg. U.S. Pat. Off.

For more details circle **NED-8925** on enclosed inquiry slip

Asbestos Gloves for HOT Jobs

HANDLE hot things with safety. Wear Industrial's famous 200-14 asbestos gloves. Made of close woven 2½ lb. Underwriters Grade asbestos cloth that resists burning. Big, roomy cut, airy and comfortable. One piece construction with no seams at wrist or working edges to burn or pull out. Furnished lined or unlined. Almost 41 years experience designed and made these dependable gloves. Many styles of gloves and mittens, both plain and leather reinforced. Write for prices and catalog.

To be sure of the Genuine
Steel-Grip INDUSTRIAL Safety Apparel
TRADE-MARK
Demand this Trade Mark

INDUSTRIAL GLOVES COMPANY
A Corporation
1539 Garfield Street, Danville, Illinois
(In Canada: Safety Supply Company, Toronto)

For more details circle **NED-8926** on enclosed inquiry slip

GREEN ENGRAVER

Proved Profitable · *Machine Tool, Radio, Electrical and Instrument Mfrs., Sales Promotion Advertising.*

Fast, rugged, convenient—and *inexpensive*. The Green Engraver is tops for low-cost performance—zips out *precision* work on metal, plastics or wood . . . cuts four lines of letters from 3/64" to 1" on curved or flat surfaces . . . operates by tracing . . . makes *anyone* an expert . . . engraves panels, name plates, scales, dials, molds, lenses and instruments. (Also widely used for routing, profiling and three dimensional modeling.) Electric etching attachment available.

Special attachments and engineering service available for production work.

FREE—Fact-packed folder. Send for yours today

GREEN INSTRUMENT COMPANY
375 Putnam Avenue Cambridge, Mass.

For more details circle NED-8927 on enclosed inquiry slip

with MULTI-CLEAN ASPHALT TILE PRESERVER and THE MULTI-CLEAN METHOD

"We spend 65% less maintenance time on our asphalt tile floors and have cut our material costs in half since using the Multi-Clean Method," says the maintenance director at Seeger Refrigerator Co., St. Paul, Minn.

Multi-Clean Asphalt Tile Preserver and the Multi-Clean Method apply to old and new asphalt tile floors . . . add years to their life, impart a new beauty-clean appearance and sure footing. No wax is required for a bright and gleaming surface.

Maintenance in the Seeger offices includes daily dry dust mopping and damp mopping with cold water followed by machine buffing with a No. 0 steel wool disc every 3 to 4 days. A new application of Multi-Clean Asphalt Tile Preserver is made 4 times a year.

Write Multi-Clean Products, Inc., Dept. NE-11 for details.

Multi-Clean 9-Job Floor Machine

Multi-Clean Wet-Dry Vacuum

MULTI-CLEAN PRODUCTS INC.
2277 Ford Parkway
ST. PAUL 1, MINNESOTA

free! FLOOR MANUALS—Handy file size, each manual deals with a specific type of floor, its characteristics and care . . . asphalt and rubber tile, terrazzo, concrete, wood, linoleum.

For more details circle NED-8928 on enclosed inquiry slip

IMMEDIATE DELIVERY!

STANDARD FLAT TYPE
C7000 SERIES
SPEED NUTS®

Fastest Thing in Fastenings

Faced with a shortage of lock nuts? Do as thousands of manufacturers have done—switch to SPEED NUTS. They can be applied much faster, eliminate assembly steps, and provide maximum holding power at minimum cost per fastener. They spin on by hand, tighten down without being held with a wrench.

10 SIZES—For machine screws, C7000 SPEED NUTS are available in these sizes: –436, –632, –832, –1024, –¼-20. For tapping screws: –4A, –6A, –8A, –10A, –14A. Write for samples.

TINNERMAN PRODUCTS, INC.
Dept. 12-A, Box 6688, Cleveland 1, Ohio

For more details circle NED-8929 on enclosed inquiry slip

ELECTRIC DEODORIZER adjusts to area requirements

Adjustable to meet all area requirements, electric fan-operated Scent-Flo air deodorizer neutralizes and destroys offensive and stale odors in the air. Complete control over uniformity and quality of air freshness is maintained. Unit is installed in a few minutes and consumes approximately 5 cents worth of electric current per month. Made of aluminum, deodorizer is finished in red, green or gold. Made by **Surco Products, Inc.**, Dept. B, 918 Wylie Ave., Pittsburgh 19, Pa.

For more details circle NED-8930 on enclosed inquiry slip

LAMINATED WASHERS combine metal and neoprene seal

A combination of metal and neoprene composition describes Weath-R-seal washers available in dished, flat or cupped styles. Washers are applicable in corrugated sheet building erection, automotive and appliance assembly, sheet metal ductwork, metal-to-porcelain assemblies and other applications where metal and compressible washer are used for sealing, surface protection or vibration absorption. Manufactured in sizes from ⅜ to 3-in. OD, washers can be produced in ovals, squares, hexagons and other shapes, and of any washer metal. Neoprene seal ranges in thickness from 1/16 to 1/4 in. while standard is 1/16 to 3/32 in. Made by **Fabricated Products Co.**, Dept. 513-N, West Newton, Pa.

For more details circle NED-8931 on enclosed inquiry slip

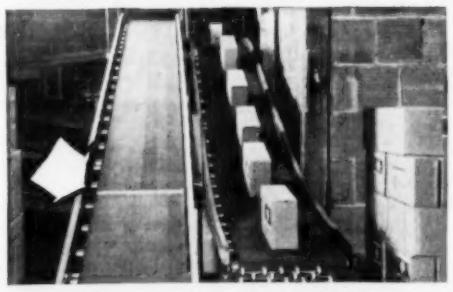
DEPTH GAGE is accurate to 0.00005 in.

Measurement of depths, lengths, angles or steps to tolerances as fine as 0.00005 in. anywhere in a 3-in. length is possible with Universal depth gage, model DG-56-R-1. Instrument weighs 7 lb and has Meehanite casting, stress relieved for dimensional stability, and 3¼ x 4-in. reference platen electrolized for wear and corrosion resistance. Alloy deposit has 79-81 Rockwell C hardness value. Any AGD indicator with AGD adjustable bracket back and 2¼-in. diameter dial can be used with gage. Vertical adjustment of indicator on base allows depth measurement within 0 to 1 in. plus indicator range with 1⅛-in. contact point, or 1 to 2-in. plus indicator range with 2⅛-in. contact point. Made by **Saart, Kraemer & Hanscom, Inc.**, 10 Harborside Pk., 1 Washington Ave., Providence 5, R. I.

For more details circle NED-8932 on enclosed inquiry slip

ALLIGATOR®

CONVEYOR BELT LACING



*Every Tooth A Vise**

in Long Continuous Lengths for Conveyor Belts . . . . .

- ★ Excellent for Package Conveyors, Portable Loaders, Trenching and Ditching Machines, etc.
- ★ In canneries where corrosion or rust is a problem specify Alligator made of Monel.
- ★ For magnetic separators or anti-sparking specify Alligator made of Everdur.
- ★ Separable and smooth on both sides.
- ★ 12 sizes. For belts from 1/16" to 5/8" thick—and *any width*.

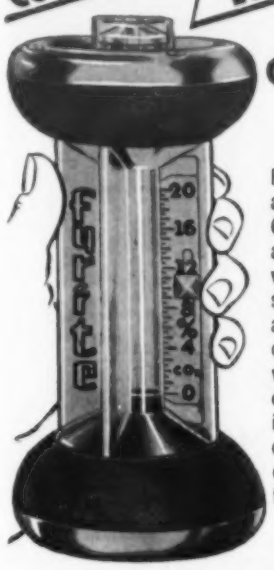
Order from Your Supply House. Ask for Bulletin A-60.

FLEXIBLE STEEL LACING CO. 4664 Lexington St., Chicago 44, Ill.

JUST A HAMMER TO APPLY IT

For more details circle NED-8933 on enclosed inquiry slip

CONVENIENT LOW COST ACCURATE



OXYGEN and CO_2 Analysis

FYRITE Gas Analyzer shown at the left is available in two models—one for direct CO_2 analysis, the other for direct oxygen analysis. Both instruments employ the volumetric method of gas analysis involving selective absorption of CO_2 or oxygen by a chemical absorbent. A complete analysis can be made in 40 seconds. Accuracy is within one-half of one per cent CO_2 or oxygen. Absorbing fluids are furnished in individually bottled refills, and replacement of the fluid in the instrument merely requires removing the four screws that hold the cap assembly in place.

Write for Leaflet I-700

Available Individually or As A Set

FYRITE Gas Analyzers can be supplied individually—in a metal instrument chest complete with rubber aspirator, rubber and metal sampling tubing and filter, as shown at the right; or in a "Duplex Kit" which comprises both CO_2 and Oxygen Analyzers together with one complete gas sampling assembly for connecting either instrument to the desired sampling point.

BACHARACH Industrial Instrument Company
7000 Bennett Street • Pittsburgh 8, Pa.

For more details circle NED-8934 on enclosed inquiry slip

Unsurpassed for Quality

McGILL® 5025 SLR GUARD

with lens, reflector, convenience outlet

Portable Lamp Guards under the trade mark McGILL have been accepted with assurance of superior design, materials and workmanship for over 40 years. A reliable guarantee of greater dependability and longer life in industrial service.

The new No. 5025-SLR beams light to inaccessible places through an end lens. Has 15 amp. 125 volt power tool outlet in phenolic plastic handle. Levolier switch, reflector, grease and heat resisting cord. Underwriters' Laboratories Inspected.

No. 8000 SR Guard is a fine general service guard, identical in construction to the 7000 rubber handle Series, except equipped with stout polished birch wood handle. Cages are of extra heavy steel wires, electrically welded and heavily zinc plated.

No. 5000 SR Guard—features the new approved, phenolic plastic handle with convenience outlet and Levolier switch. Closed end cage for 100 watt bulb.

No. 3006 Vaporproof Guard — Designed to provide absolute protection wherever portable lighting must be watertight, dust-tight and moisture proof. A heat and impact resisting glass globe screws into a rubber gasket. Handles are macerated plastic, sealed at the cord with a diaphragm washer.

No. 152-C Lamp Changer— for 100 watt bulb. Changer heads are available for other types and sizes of bulbs. New light-weight steel pole is furnished in 5½ ft. sections, insulated and easily locked together to reach a recommended maximum of 30 feet.

Available From Your Electrical Wholesaler

For new Catalog No. 49 write McGill Manufacturing Co. Inc., 151 N. Campbell St., Valparaiso, Indiana.

McGILL® electrical specialties

ONLY McGILL MAKES Levolier SWITCHES

For more details circle NED-8935 on enclosed inquiry slip

METZGAR FLOOR -TO- FLOOR "Power Helper"

SAVED . . . $3,044 OVER COST OF ELEVATOR

WRITE— for Suggestion. Give height, floor to floor and horizontal space available — Also maximum unit load

- Maintenance—Zero
- Operating Cost—Negligible
- 500% Faster Loading & Unloading
- Safer than Elevator
- Flexible, with 2-way Controls
- Prompt Delivery—Easy Installation

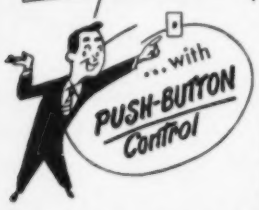
METZGAR

METZGAR CO.
416 DOUGLAS ST., N. W.
GRAND RAPIDS 4, MICH.

For more details circle NED-8936 on enclosed inquiry slip

Investigate...

The NEW Struthers Wells IMPREGNATOR



For
DEPENDABLE IMPREGNATION OF ELECTRIC COILS — WOOD CARBON PARTS — AND OTHER MATERIALS

The new Struthers Wells Impregnator for dependable, simplified impregnation of a wide variety of materials, is available in a complete line of sizes for vacuum and pressure operations—for use by heating with steam, electricity or Dowtherm, or for non-heated operations. Supplied in complete units as illustrated, or principal parts only may be specified if desired. • Heating systems are supplied if required.

Write today for Bulletin B-30

STRUTHERS WELLS CORPORATION
WARREN, PA.
Plants at WARREN, PA. and TITUSVILLE, PA.
OFFICES IN PRINCIPAL CITIES

For more details circle NED-8937 on enclosed inquiry slip

THE BIG "3"

Capable of rough cutting plus blending of welds.

Only really flexible grinding wheel ever offered.

Withstands extremely rough usage —extra safe.

BAYFLEX • DURACUT • SAF-T-CUT, reinforced abrasive disc-wheels . . the masters of your weld grinding and finishing problems. Greater resiliency and safety make these "Big Three" products first choice in foundries, metal fabricating and welding shops.

BAY STATE ABRASIVE PRODUCTS CO.
Westboro, Mass.
Branch Offices and Warehouses—
Chicago, Cleveland, Detroit, Pittsburgh
Distributors—All principal Cities
In Canada: Bay State Abrasive Products Co. (Canada) Ltd.
Brantford, Ontario

BAY STATE

Send for latest information-packed "BIG-THREE" catalog. It contains such data as mounting instructions, recommended speeds, charts, specific applications, etc.

For more details circle NED-8938 on enclosed inquiry slip

PLASTIC-COATED GLOVE
can be worn on either hand

Impregnating plastic used in these red, green, black, brown or natural color industrial gloves makes them strong, yet pliable. They have a soft lining and can be worn on either hand, giving each glove the wearing quality of two. Gloves are available in knit wrist, short and full gauntlet models. Plastic will not crack or peel; is acid, flame, chemical and abrasive resistant; and oil, gasoline, grease and waterproof. Made by **Washington Glove Corp.**, 104 N. Water St., Milwaukee 2, Wis.

For more details circle NED-8939 on enclosed inquiry slip

ELECTRODE OVEN
cuts rod moisture absorption

Gap between manufacturer's sealed container and actual use of mineral coated electrode is filled by DryRod electrode oven which protects electrodes against moisture absorption. Portable heated storage unit controls moisture content to within 0.2 per cent, normal U. S. Government standard for moisture content. It is heated by 840-w element operating on 110 or 220-v circuits. Thermostat controls temperatures up to 600° F in oven which holds 350 lb of electrodes up to 18 in. long. Made by **Philip Roden Co.**, 1722 E. Lake Bluff Blvd., Milwaukee 11, Wis.

For more details circle NED-8940 on enclosed inquiry slip

FLOOR SWEEPERS
two models with three brush types

Powered by 1-hp four-cycle engine, this motorized floor sweeper is offered in 20 and 28-in. width. Addition of a wall brush (see photo) increases sweeping width by 6 in. Three types of brushes are available: all-purpose brush of mixed fibers; Tampico brush for sweeping of tile, terrazo and polished floors; and Bassine heavy duty brush for heavy materials and rough surfaces. Sweeper is easily emptied by raising lightweight hopper, lifting it out and dumping contents. Other features include ball reel bearings, roller wheel bearings and semipneumatic tires. Made by **Parker Sweeper Co.**, 6 Bechtle Ave., Springfield, O.

For more details circle NED-8941 on enclosed inquiry slip

Here's the profitable answer to many filtering problems

Illustrated is portable unit; stationary units also available

NUGENT
Packaged
Filtering Units

For large garages, machine shops, engine rooms, electroplating plants, etc., complete, compact Nugent Filtering Units will often pay for themselves in oil savings in a very short time. Consisting of a motor, pump and filter assembly these units can be hooked up to clean oils and liquids in all types of containers. Filtering can be done either by the batch or by continuous circulation. Capacities from 0.8 gpm to 22.5 gpm. Portable or stationary models are available. Write for full details and descriptive literature.

NUGENT TRADE MARK Est. 1897

Wm. W. Nugent & Co., Inc.
421 N. Hermitage Ave. CHICAGO, 22, ILLINOIS

Oil Filters, Oiling and Filtering Systems, Telescopic Oilers, Oiling Devices, Sight Feed Valves, Flow Indicators . . . Representatives in Principal Cities

For more details circle NED-8942 on enclosed inquiry slip

For FULLEST protection
against shorted wiring—use NEW T & B Self-Insulated Sta-Kon Terminals...save an extra insulating operation

THERE'S A T&B ENGINEERED PRODUCT for every wiring job in the complete T & B line of fittings for all conductors and raceways

End the risk of shorts between closely-mounted terminals—by using T & B Self-Insulated Sta-Kons.

Insulation prevents metal-to-metal contact between adjacent terminals—withstands heat, impact and deformation—successfully resists attack by gasoline, naphtha, hydraulic fluids and other chemicals.

Like all Sta-Kons, these new terminals assure high conductivity, low contact resistance, lasting grip. Shipped as one piece—assembled in one operation with Shure-Stake hand tools—or with air-powered types.

Engineered Right—Distributed Right Self-Insulated Sta-Kon Terminals are typical of all T & B quality fittings designed for lowest installed costs. Furnished 100% through T & B distributors under the T & B Plan.

THE THOMAS & BETTS CO.
INCORPORATED
24 BUTLER STREET, ELIZABETH 1, NEW JERSEY
Manufacturers of Electrical Fittings since 1899
Originators of self-insulated solderless terminals in 1935

For more details circle NED-8943 on enclosed inquiry slip

NEW MACHINE LEVELING DEVICE

Locates on anchor bolt.

Self-aligns to uneven floor.

Easily lifts 8,000 lbs.

Simply turn adjusting nut to raise or lower machine.

VI-SORB mounting pads absorb vibration.

Where anchor bolts are used, this new Empco Jack Style JS will save considerable time in setting and keeping equipment level.

Tested to support 20 tons and lift 8,000 lbs., this Empco Jack is the answer to any machine installations. Anchor bolt hole through the jack assembly allows clearance for ¾" diameter bolt. This permits the Empco Style JS Jack to be used at the *precise spot* where equipment was designed to be best supported.

Available in three sizes: 1¾", 2", and 3" (minimum heights) with VI-SORB mounting pads as optional equipment.

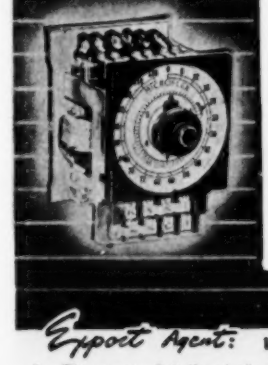
Write for specifications and prices of the complete line of Empco Leveling Jacks today.

EMPCO PRODUCTS

THE ENTERPRISE MACHINE PARTS CORPORATION
2727 JEROME AVENUE • DETROIT 12, MICHIGAN

For more details circle NED-8944 on enclosed inquiry slip

There is an EAGLE **TIMER** to *SPEED* up Your **INDUSTRIAL PROGRESS**



Let Eagle help increase your production and save many man hours with automatic opening and closing of electrical circuits. Eagle builds a timer for your individual process. Send us your timing problem or write for Bulletin 340.

EAGLE SIGNAL *Industrial Timers*
EAGLE SIGNAL CORPORATION MOLINE, ILL.

Export Agent: 13 EAST 40th ST., NEW YORK 16, N. Y.

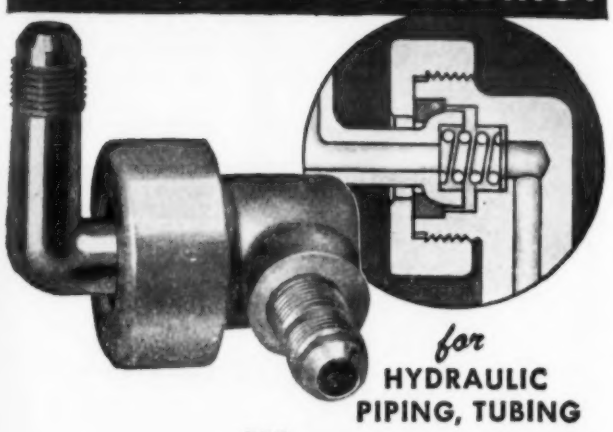
For more details circle NED-8945 on enclosed inquiry slip

THOMAS TRUCK & CASTER CO.

243 MISSISSIPPI RIVER
KEOKUK, IOWA

For more details circle NED-8946 on enclosed inquiry slip

LEAKPROOF! NO BINDING!



for HYDRAULIC PIPING, TUBING

BARCO *High Pressure* SWIVEL JOINTS

WHEREVER hydraulic piping or tubing must move, use Barco Swivel Joints! Barco's exclusive design provides *side flexibility* to allow for piping misalignment and to PREVENT BINDING. *Only Barco offers this important advantage.* Widely used for making compact, low torque swivel connections to reciprocating or rotating parts. Ends the nuisance of sagging, flopping non-rigid lines. LEAKPROOF; SAFE! Suitable for extremely high or low temperatures. Ratings to 3,000 psi, or higher. Choice of styles, ⅛" to 2", angle or straight. *Ask for Bulletin 265.* BARCO MFG. CO., 1830M Winnemac Ave., Chicago 40, Ill. *In Canada:* The Holden Co., Ltd.

For more details circle NED-8947 on enclosed inquiry slip

Control Costs with

COUNTING SCALES

Toledo's *complete line* of Counting Scales gives you the right model for *accurate cost control* in a wide range of jobs! For issuing pre-determined quantities of uniform parts . . . counting unknown quantities . . . for *faster inventory counts* . . . or to get accurate receiving, shipping, production, cost and piece-work counts. Complete selection of models . . . for parts weighing only a few grains . . . up to total counting capacities of several tons. Also choice of double and triple ratio combinations. Send for booklet 2204. Toledo Scale Company, Toledo 12, Ohio.

TOLEDO

HEADQUARTERS FOR SCALES

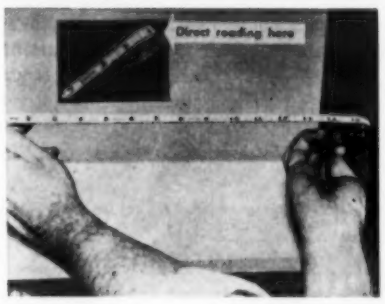
For more details circle NED-8948 on enclosed inquiry slip

FIRE EXTINGUISHER
dry chemical unit shoots 20 ft.

Made of stainless steel, 20 and 30-lb dry chemical fire extinguishers are light in weight to allow maneuverability when fighting fires. Finger tip controlled unit shoots chemical heat-insulating cloud up to 20 ft. Dry chemical produces 1100 times own volume in non-toxic flame killing gas on contact with flame. Use of Underwriters' Laboratories approved device is for class B and C fire hazards. Extinguisher can be recharged readily after it has been used. Made by **Buffalo Fire Appliance Corp.**, Dept. D, Dayton 1, O.

For more details circle NED-8949 on enclosed inquiry slip

STEEL MEASURING TAPE
locking feature allows use in dark



Flick of locking lever on Streamline steel measuring tape retains measurements made in dark or hard-to-get-at places until tape is moved into light. Measurements are read directly at top of case without computation. Tape has graduations on both edges of both sides. Made in 6, 8 and 10-ft lengths with etched blue steel or black-on-white tapes, tool also has pistol-butt case and decimal equivalent chart. Made by **Master Rule Mfg. Co.**, 42 Mulberry St., Middletown, N. Y.

For more details circle NED-8950 on enclosed inquiry slip

SUBMINIATURE RECTIFIERS
selenium type for various uses

Made in ratings up to 20 milliamperes dc output and 25,000 v ac input per single stack, Minisel subminiature selenium rectifiers feature a variety of constructions for military and commercial applications. Special constructions allow for hermetic sealing and fungusproofing. Rectifiers are made of matched ¼-in. diameter selenium cells encased in Bakelite, glass or metal housings with little variance in characteristics within individual unit and from unit to unit. They can be built in all common and many special electrical configurations. Made by **Electronic Devices, Inc.**, Precision Rectifier Div., Dept. NED, 429 Twelfth St., Brooklyn 15, N. Y.

For more details circle NED-8951 on enclosed inquiry slip

New Hydraulic Gang Plank
Speeds Loading 50%

No excavation required for installation.

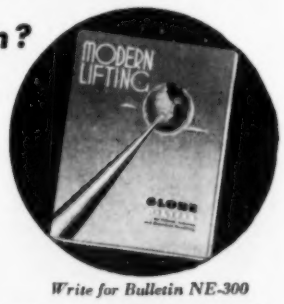
Globe Hoist has come through with a most effective "aspirin" for your loading headaches. It is a new hydraulic ramp that speeds up loading or unloading by 50% with a corresponding cut in time and labor costs. When a truck backs up to your dock, pressure on a button raises or lowers the ramp. A sturdy "lip" rests firmly on the truck bed. The ramp is self-leveling and "rides" with the truck as the springs flex.

This latest Globe Self-Leveling Ramp operates by air, air-oil, or motor pump, and is simply bolted on a load pad, thus requiring no excavation. It is easy to install. Quickly pays for itself.

Got a Lifting Problem?

GLOBE

has the answer



Write for Bulletin NE-300

Muscle is the world's most wasteful lifting power. A Globe OiLIFT will do it cheaper and better.

Write today for "Modern Lifting." It is full of interesting information on Self-Leveling Ramps, Machine Loading Lifts, Industrial Truck Service Lifts, Production Lifts, etc.

GLOBE HOIST COMPANY • 1000 E. Mermaid Lane, Philadelphia 18, Pa.
(Factories at Des Moines, Iowa & Philadelphia, Pa.)

For more details circle NED-8952 on enclosed inquiry slip

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CHOOSE THE

AIR VALVE YOU HELPED DESIGN

Best for Trigger-Quick Control of All Air Operated Equipment
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FULL FLOW
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COMPACT
•
ONE MOVING PART

Send for FREE Catalog

MAC

MECHANICAL AIR CONTROLS, INC.

15313 W. 11 MILE RD. • ROYAL OAK, MICHIGAN

For more details circle NED-8953 on enclosed inquiry slip

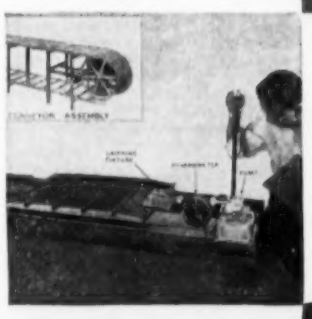
to measure *tension, traction or weight*

do it accurately with

DILLON DYNAMOMETERS!

COST IS NEGLIGIBLE

Rugged, compact, accurate; DILLON DYNAMOMETERS are simple and easy to handle and read.



From simple weighing to intricate torque tests, the DILLON DYNAMOMETER is doing the job with the same unfailing accuracy, versatility and rugged dependability which has made it a "by-word" in industry throughout the world. Your own plant becomes your testing laboratory with a DILLON DYNAMOMETER.

Built to take years of hard, daily use, the DILLON will pay for itself many times over.

Light: 8 lbs. 4 ozs. (5" dial model.)

Compact: 8¼" long, 6¼" high, 3" thick.

Accurate: Calibrated in Certified Laboratory Testing Machine.

The DILLON DYNAMOMETER is made in 9 different capacities: 0-500 lbs. up to 0-50,000 lbs. All have max. hand, shackles, safety glass crystal. There are thousands in use today by leading companies all over the world. Write for profusely illustrated Bulletin D-1.

W. C. DILLON & CO., INC.

Precision Instruments for Precision Testing
1421 NE South Circle Ave., Forest Park, Ill.

For more details circle NED-8954 on enclosed inquiry slip

Protect Your Customers

ALLIS-CHALMERS Electronic Metal Detector

... from stray metal particles like these →

PRODUCT LIABILITY insurance protects you from obvious losses in damage suits, but doesn't protect your customer or your reputation. Precautions may lessen the problem, but rust particles, hairpins, and steel slivers still get into packaged goods somehow.

The surest way to find hidden stray metal-magnetic or non-magnetic — is with an Allis-Chalmers electronic Metal Detector on your packaging or processing line.

Complete Information

Get 20 page booklet 15B7217A. Numerous schematic sketches show ways of using the Metal Detector to protect processing machinery or insure packaged goods quality. Call your nearby Allis-Chalmers District Office, or write Allis-Chalmers, Milwaukee 1, Wisconsin. A-3333

ALLIS-CHALMERS

For more details circle NED-8955 on enclosed inquiry slip

AERO-SEAL WORM-DRIVE HOSE CLAMPS

WON'T SHAKE LOOSE!

Wherever you have to clamp a hose connection tight . . . or wherever you want to lock two objects of any shape together in an unshakeable bond . . . your best bet is AERO-SEAL.

Threads of steel worm engage deep into slots in stainless steel band — hold tight under extreme vibration in automotive, aircraft and industrial applications. CAN'T SHAKE LOOSE.

One-Hand Installation

Install an Aero-Seal any place you can reach with thumb and one finger. Self-feeding when band engages worm threads. Thumb-grip and screwdriver types.

Re-use Again and Again

When hose is worn you RE-USE the same Aero-Seal again and again. RE-USE Aero-Seals on temporary clamping jobs—they conform to any shape without damaging band.

ALL AERO-SEALS HAVE STAINLESS STEEL BANDS

"Aero-Seal" WORM DRIVE HOSE CLAMPS

ANOTHER BREEZE MARK PRODUCT

BREEZE CORPORATIONS, INC. 41 South Sixth St. Newark, N. J.

For more details circle NED-8956 on enclosed inquiry slip

Left— Union Special Style 20100 H Bag Closing Machine

Here's how to close MULTIWALL PAPER BAGS

FOR lower production costs ...stronger, neater closures ...ability to get out rush orders in a hurry, you can't beat Union Special Bag Closing Machines! Specially built to stand up under heavy production schedules, these machines provide the high output rates needed to meet modern competitive conditions.

In the Union Special line, it's easy to find the right unit to meet your particular requirements. ASK FOR RECOMMENDATIONS.

SEND FOR THIS BULLETIN!

Get your copy of this 16 page illustrated bulletin containing helpful data and charts on the complete Union Special line of bag closing machines. UNION SPECIAL MACHINE CO., 416 North Franklin Street, Chicago 10, Illinois

UNION SPECIAL

For more details circle NED-8957 on enclosed inquiry slip

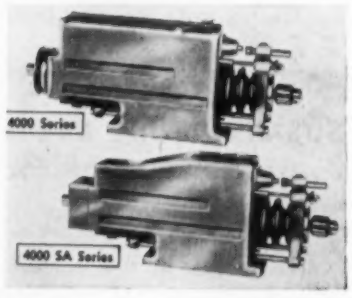
ELECTRIC FORK LIFT TRUCK
telescopic type handles loads in minimum of aisle space

For efficient handling of loads in minimum of aisle space, counterbalanced model E1SCTL JackStacker walk-type electric fork-lift truck provides both horizontal and vertical movement of 1000-lb, 48-in.-long loads. Operating controls are located in handle head, and braking action of truck is independent of position of control handle. Telescopic design is featured in three standard models with respective collapsed heights of 59, 71, and 83 in. and fork elevation of 82, 106 and 130 in.

Truck is 46½ in. long with forks rotated into carrying position. Operator can lift and tilt load while maneuvering truck into position. Lifting rams contain chromium plated plungers to minimize oil leakage due to scoring. Pressure packings have automatic take-up for normal wear and do not need periodic adjustment. Sealed ball bearings and self-lubricating bronze bushings eliminate need for periodic lubrication. Gear drive is heavy duty, totally enclosed type. Made by **Lewis-Shepard Products Inc.**, 193 Walnut St., Watertown 72, Mass.

For more details circle NED-8958 on enclosed inquiry slip

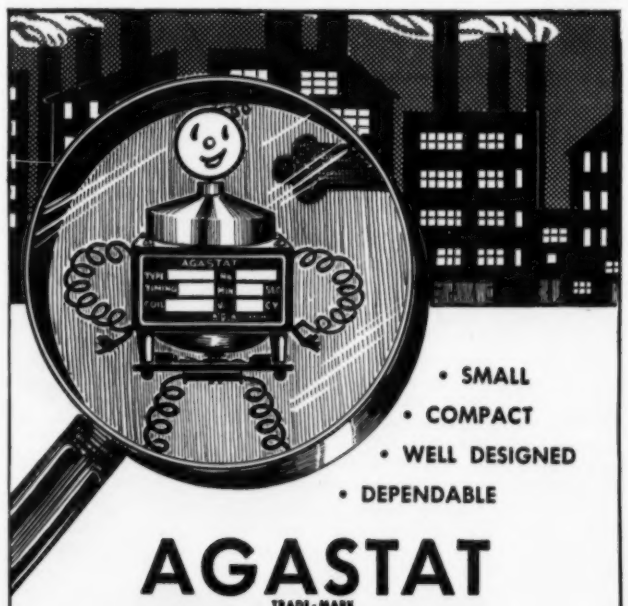
DRILL & TAP UNITS
both heavy and light duty types have same overall dimensions



Featuring positive control drilling, both heavy duty 4000 series and light duty 4000 S-A series drilling units are completely automatic. Identical hydraulic check mechanisms allow "control cycles," and built-in electrical solenoids start drill action. Heavy duty model has self-contained power source and 2-cycle compressor with pressure adjustments from 0 to 500 lb. Unit will drill up to 5/16-in. diameter in alloy steel. Light duty model employs shop air for power against 3-sq-in. piston surface and drills up to ¼-in. diameter in mild steel.

Both models are capable of half-hole drilling and drill starting on angular surfaces. Spindle travel is 3 in. Construction of hydraulic checks permits mounting at any angle and assures flow of oil from reservoir to restricting chamber. Units have same size cases, 3¼ x 7⅝ x 18⅞ in., and can be used in multiple arrangement. Simple changes make them adaptable for tapping and burnishing operations. Made by **Locke Gage Co.**, 10232 Woodward Ave., Detroit 2, Mich.

For more details circle NED-8959 on enclosed inquiry slip



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• WELL DESIGNED
• DEPENDABLE

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TRADE-MARK
TIME DELAY RELAY

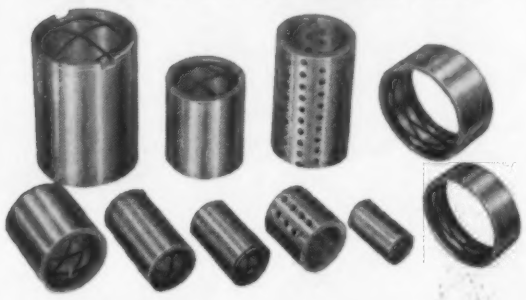
PROTECTS BIG INDUSTRY PROCESSES

AIRPORT LIGHTING · AGASTAT TIME DELAY RELAY · SIMPSONITE REFLECTORS · MARINE LIGHTING EQUIPMENT

Address inquiries to Special Products Division
American Gas Accumulator Company
1027 Newark Avenue, Elizabeth 3, New Jersey

For more details circle NED-8960 on enclosed inquiry slip

GRAPHITED OIL-LESS BRONZE BEARINGS



GRAPHITED — Only PURE GRAPHITE is used, with a specially developed and tenacious binder.

OIL-LESS — Requires no further lubrication during the life of the bearing.

PRESSURE — The Graphite Composition is applied under pressure by hydraulic or other adequate means, then baked at high temperature for permanence.

IMPREGNATED — Impregnated in such a manner as to secure complete surface coverage, giving the working effect of a metal saturated with lubricant.

BRONZE BEARINGS, INC.
340-344 NORTH AVENUE — EAST
CRANFORD, N. J.

For more details circle NED-8961 on enclosed inquiry slip

WALES SHEET METAL FABRICATOR provides rapid interchangeability for punching and notching. Work from blue prints or operation sheets. *No Templets Required.* Write for Catalog 10-A.

WHY IT PAYS TO STANDARDIZE ON

WALES
SHEET METAL EQUIPMENT

● In practically every sheet metal fabricating plant or department there is a need for Wales Machinery and Equipment. Standardizing on this versatile line assures the exact type for various operations.

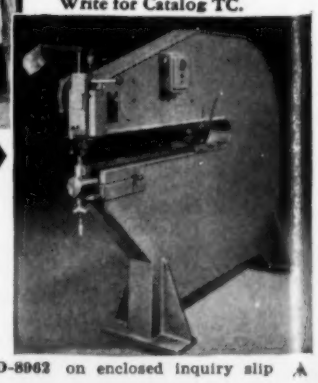
For example, hole punching and notching operations may be performed on either the Wales Fabricator or on the Wales Twin Column Press with Wales Hole Punching and Notching Units. Depending on the number of parts and the size and shape of the work, one piece of Wales Equipment is more efficient and economical than the other.

To fully determine which Wales Equipment is most applicable to a particular type of work, call on Wales Engineers who have years of experience in the most economical way to fabricate sheet metal parts. Yes, make it standard practice to call on Wales Engineers FIRST for their valuable suggestions.

WALES-STRIPPIT CORPORATION
George F. Wales, *Chairman*
363 Payne Avenue, North Tonawanda, N. Y.
(Between Buffalo and Niagara Falls)
Wales-Strippit of Canada, Ltd., Hamilton, Ontario

WALES DRILLING MACHINE is especially designed to meet the exacting requirements of locating, drilling and reaming holes in material of practically any length and up to 36" wide. Write for Catalog DM.

WALES TWIN COLUMN PRESS features simplicity of design that fulfills the engineering axiom - "building it simple builds it better". In many cases, this press eliminates the necessity of a die set. Write for Catalog TC.



TRU-EDGE CONTOUR SHEAR cuts and trims irregular shapes and circles and also beads, rigidizes, forms and flanges. Ideal for accurate, short run work eliminating prohibitive die costs. Write for Catalog TS.

Specialists in Punching and Notching Equipment

For more details circle NED-8962 on enclosed inquiry slip

FOOT SWITCHES

Approved by Underwriters' Laboratories

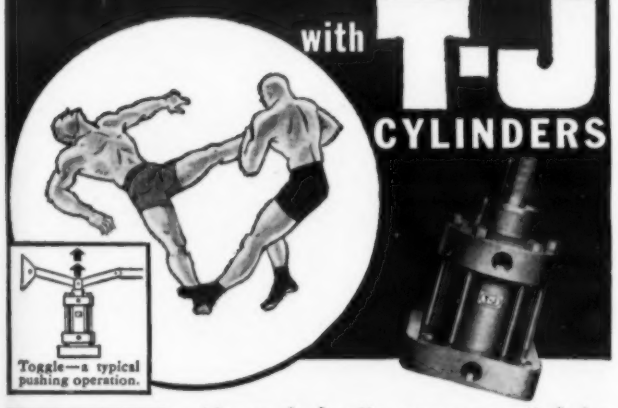
This line of rugged, versatile foot switches helps speed up production by eliminating time wasting, dangerous movements. The units can be supplied in several standard sizes or models. They can also be supplied to meet your special electrical requirements. Standard models are AC or AC-DC and ratings from ¾ of one amp. 125 Volts to 30 amp. 125 Volts—1 to 3 phase—, or 3 amp. 250 Volts to 15 amp. 250 Volts—1 to 3 phase—. Some models can be furnished single pole single throw, or double throw double pole. Complete line are Underwriters' approved.

PIONEER PATENTS & PRODUCTS CO.
P. O. Box 5982 Chicago 80, Ill.

For more details circle **NED-8963** on enclosed inquiry slip

Rasslin' with HIGH COSTS?

SAVE on "MUSCLE JOBS" with T-J CYLINDERS



Toggle—a typical pushing operation.

Pulling—as shown in 1st class lever.

Lifting—a straight thrust movement.

Air or hydraulic power—applied by T-J Cylinders—gets an amazing lot of tough jobs done for industry . . . *faster, more efficiently,* and at *lower cost!* Use T-J Cylinders for a wide range of pushing, pulling, lifting, clamping or control jobs . . . 100 lb. or 50,000 lb. Many standard sizes and styles . . . both cushioned and non-cushioned types . . . precision-built, dependable. Write . . . The Tomkins-Johnson Co., Jackson, Mich.

35 YEARS EXPERIENCE

TOMKINS-JOHNSON
RIVETORS . AIR AND HYDRAULIC CYLINDERS . CUTTERS . CLINCHERS

For more details circle **NED-8964** on enclosed inquiry slip

MIGHTY-MITE

THE ECONOMICAL WAY TO SCREEN LIGHT MATERIALS

SINGLE AND DOUBLE DECK MODELS

Speeds Up Sizing, Dedusting, Reclaiming

Put a Mighty-Mite to work and you'll minimize time and labor requirements for screening sand, candies, nuts, tumbler chips and hundreds of other materials. Safe, efficient, proven for light duty. Sizes 1½' x 4' to 2' x 8'. Send for folder, Dept. P.

Made By The Makers of SECO VIBRATING SCREENS

SCREEN EQUIPMENT CO., INC.
1752 WALDEN AVE., BUFFALO 21, NEW YORK
In Canada, United Steel Corp. Ltd., Toronto, Ont.

For more details circle **NED-8965** on enclosed inquiry slip

PUNCH PRESS GUARD

electric-pneumatic operated unit has twin-button safety starter

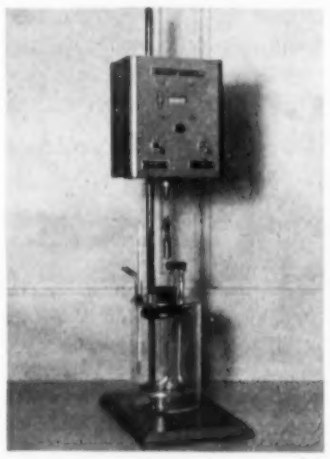
Punch press control model No. AE 60 is designed for direct clutch presses having not more than 60-lb pull and 2 in. of up and down movement on clutch tripping rod. Electric-pneumatic operated, unit is also adaptable to spot welders, brakes and shears. Present foot treadle is replaced by air clutch operator which has two start buttons installed far enough apart to require two-hand depression by operator. Antirepeat switch and long cam allows ram to descend only once with each depression of start buttons.

Plugging device into press for blanking purposes gives automatic operation to press, making start buttons inactive. This complete packaged unit is easily installed and consists of air clutch operator, antirepeat switch, long cam, two start buttons, mounting bracket, blank connector, Lubro-control unit and wiring diagram. Made by **Tech-n-Kal Machine & Engineering,** Dept. 10N, 12925 Auburn Ave., Detroit 23, Mich.

For more details circle **NED-8966** on enclosed inquiry slip

GEL-TIME METER

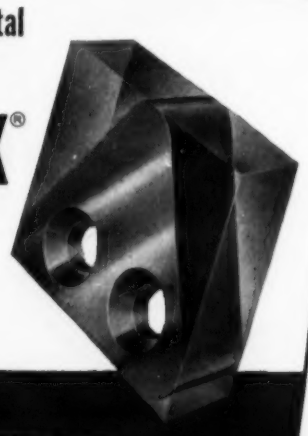
for measuring gelation point of thermosetting compositions



Designed to measure time required for fluid thermosetting compositions to reach point of rapid viscosity change during polymerization, gel-time meter will aid in evaluation of compositions used in making monomers, resins, varnishes and other protective coatings. It can also be used in studying effects of such variables as reaction temperatures, catalysts, inhibitors and quality of main reactants. Device measures gel time, a direct function of viscosity drag in test sample, by means of rotating spindle suspended from torsional spring. At gel point, viscosity increases suddenly and increased drag closes switch which stops timing mechanism and actuates electrical indicator. Alarm system gives audible and visible indications when fluid reaches point of incipient gelation. Small Calrod heating unit and condensing coil keep boiling bath at known constant temperature. Operation is on 115-v, 60-cycle, 350-w power. Made by **General Electric Co.,** Schenectady 5, N. Y.

For more details circle **NED-8967** on enclosed inquiry slip

no waste metal with GRAMIX® parts



Because Gramix parts are precision die-pressed from powdered metals to tolerances within .0005", they can be produced with minimum scrap waste. And they require little or no costly machining. Gramix parts can be oil-impregnated during manufacture to eliminate the need for regular oiling. Gramix parts are strong and tough, too. For complete details, write us today.

THE UNITED STATES GRAPHITE COMPANY
Division of The Wickes Corporation
SAGINAW, MICHIGAN

88

For more details circle **NED-8968** on enclosed inquiry slip

IT'S ALLIED FOR RCA

electron tubes for industry

ALL TYPES IN STOCK

- Vacuum Power
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833 W. Jackson Blvd., Dept. 37-L-1
Chicago 7, Ill.

Everything in Electronics from ONE Source

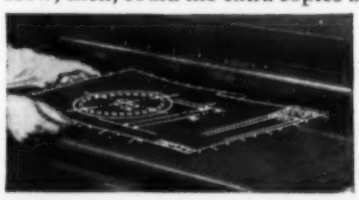
For more details circle **NED-8969** on enclosed inquiry slip

How to get extra copies of blueprints—fast!

A case history based on the experiences of the American Brake Shoe Company, Kellogg Division, Rochester, N. Y.

The blueprints (and direct-process prints) submitted by customers placing machining orders used to be a problem for the Kellogg Division, American Brake Shoe Company.

Invariably, prompt delivery was requested. But . . . before production could begin in the shop, extra copies of each customer-print were needed. Being semi-opaque, these prints could not be used as "masters" in Kellogg's direct-process machine. How, then, could the extra copies be obtained in the shortest time . . . and at the lowest cost?



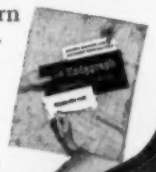
Kodagraph Autopositive Paper was the answer.

Now . . . extra copies are made quickly . . . economically. With "Autopositive," Kellogg reproduces the blueprints, direct-process prints, and other types of "originals" *directly* . . . quickly obtains the print-making masters that are needed so urgently.

The operation is simple . . . is performed under ordinary room illumination. "Autopositive" is exposed in contact with the customer's print in Kellogg's direct-process machine. It is then processed in standard photographic solutions. The result is a sparkling, long-lasting photographic intermediate—dense blacks, clean whites—on a durable, evenly translucent paper base. Using this, the required number of extra copies can be turned out . . . at practical, uniform machine speeds.

Kodagraph Autopositive Paper

"THE BIG NEW PLUS" in engineering drawing reproduction



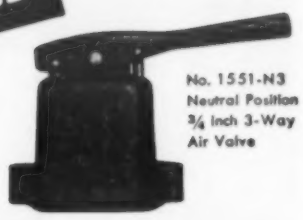
Write for new free booklet, "Modern Drawing and Document Reproduction." It gives all the facts about revolutionary "Autopositive," which you, or your local blueprinter, can process quickly, economically.

EASTMAN KODAK COMPANY
Industrial Photographic Division
Rochester 4, N. Y.

Kodak

For more details circle **NED-8970** on enclosed inquiry slip

Quick-As-Wink AIR AND HYDRAULIC Control Valves



No. 1551-N3 Neutral Position ¾ Inch 3-Way Air Valve

HAND OPERATED Air Valves

Thousands of Uses Throughout Industry

● Universally used and endorsed. Valving mechanism has stainless steel body and push-pull rods, brass sleeves, self-sealing U-packers and many other refinements, all fully enclosed against dirt, assuring long efficient trouble-free operation. No metal to metal seating. ⅜" to 1½" sizes, 3-way and 4-way, neutral position and regular actions. Pipe header mounting plates furnished if desired. *Write for full details.*

Quick-As-Wink AIR AND HYDRAULIC Control Valves

Hand, Foot, Cam, Pilot, Diaphragm and Solenoid Operated

Mfd. by **C. B. HUNT & SON, INC.,** 2008 E. Pershing St., Salem, Ohio

For more details circle **NED-8971** on enclosed inquiry slip

MARSH

Delivers The Goods!

Hand Operated STENCIL MACHINE | Electric STENCIL MACHINE

FOUNTAIN BRUSH | STENCIL INK

STENCIL OIL BOARD | FELT-POINT PENS

Handy reference saves you time and money in your shipping department. An excellent guide to correct shipment addressing methods. Send for your copy.

MARSH

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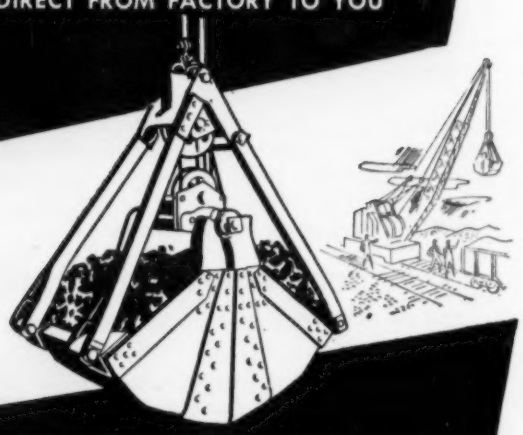

ROPE-REEVE, POWER WHEEL AND LINK TYPE

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INDUSTRIAL BROWNHOIST CORPORATION

BAY CITY, MICHIGAN

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BALL TRANSFERS offered in five basic types

Boxes can be easily maneuvered and sheets or plates can be moved to any position for cutting or other operations with ball transfers, made in five basic types. With capacities of 50 and 100 lb each, respectively, types 101 and 201A are usually welded or bolted to steel plates to form a table for moving materials in any direction. Types 202A (capacity 100 lb), 501 (capacity 250 lb) and 750 (capacity 650 lb) are usually threaded onto end of pipe mountings. Latter three types can also be welded or bolted to plates for handling heavy loads. Made by **Mathews Conveyer Co.,** 188 Tenth St., Ellwood City, Pa.

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FREIGHT ELEVATOR DOOR SILL protects against truck damage

Bridging gap between elevator and floor of building, platform or truck, model E metal sills offer protection against damage caused by wheels of trucks being moved in and out. Sills are equipped with two electric interlocks and become integral part of elevator. When sill is down, elevator is locked in position. When up, it acts as gate to prevent trucks and carts from rolling off. Made by **Alexander Sill Co.,** Dept. N, 970 Milwaukee Ave., Chicago 22, Ill.

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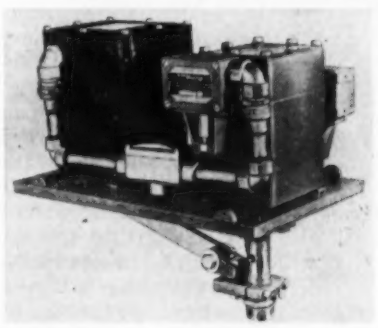
VISCOSITY METERS operate from 100 psi to full vacuum



Developed to measure viscosities of solutions under all pressures from 100 psi to full vacuum, model M5 and M6 Viscometer measuring elements can be used also to record or control viscosities. Model M6 (illustrated) meets Underwriters' requirements for explosionproof equipment. Devices are suitable for controlling end-point viscosities. Control is within viscosity range from 1 to 200,000 centipoises. Recording unit can be mounted locally or at any desired remote location. Measuring element is installed in vertical position with lower end immersed in liquid or solution whose viscosity is to be measured. Made by **Norcross Corp.,** 247-B Newtonville Ave., Newton 58, Mass.

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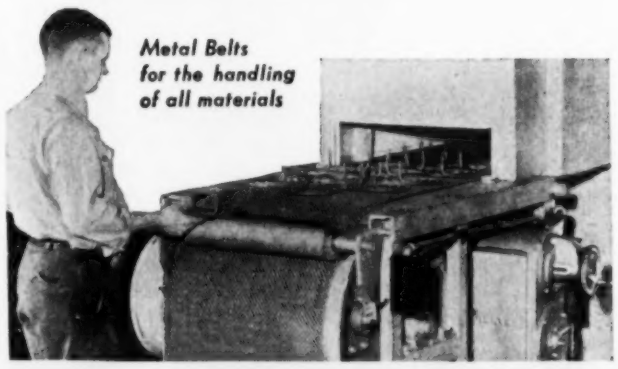

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KEEPS MOTOR OUT OF AIR STREAM

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ASH AND BROWN STREET, PIQUA, OHIO

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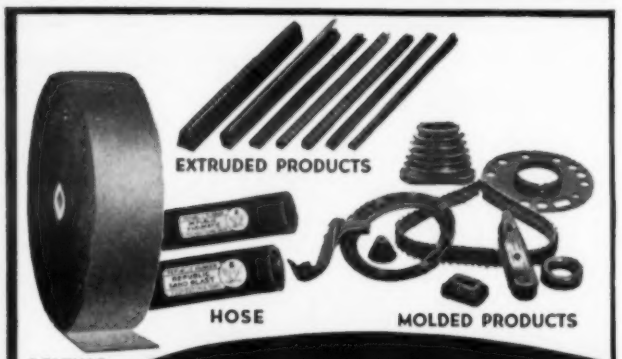

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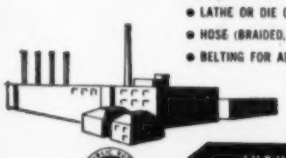

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EXPANDED METAL FLOOR TRUCKS

- Greater Economy
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MODEL 4-A
Length 60", width 30", height 30".

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MODEL 4-B
Length 60", width 30", height 48".

Durable, highly maneuverable, economically priced. Designed to meet a wide range of material handling jobs. Rigid angle iron frame. Equipped with four 4" ball-bearing fiber casters—swivel casters centered at front and rear; rigid casters centered on each side. Model 4-B has hinged drop panel on side equipped with positive safety latches.

- Also other types of expanded metal containers in sizes and quantites to customer's specifications.

INDUSTRIAL ENGINEERING & MFG. CO., INC.
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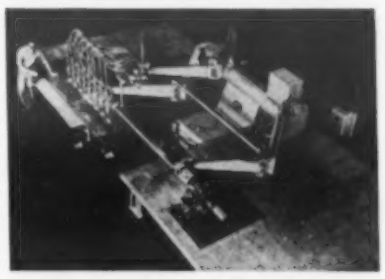
GAS CUTTING MACHINE
pantograph type cuts accurately



Guided by manual, magnetic or electronic tracer, Airco No. 50 Travograph gas cutting machine will cut wide variety of shapes from steel plates, slabs, billets and forgings. Machine is built for precision cutting of one or few parts economically or identical parts on production basis. Rolled tracks in rigid assembly provide smooth runway for carriage. Thy-mo-trol controlled carriage drive motor unit is self-contained and provides stepless carriage speeds from 2 to 168 in. per minute. Distributed by **Air Reduction Sales Co.,** Dept. NED, 60 E. 42nd St., New York 17, N. Y.

For more details circle NED-8984 on enclosed inquiry slip

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heats water to usable temperature

Eliminating danger of scalding by heating water to safe temperature for washroom use, this safety water heater operates on existing plant steam systems. Porcelain enamel lined storage tank type heater has steam coils completely submerged in tank. Regulation is by control bulb located in heater body where it is immediately affected by slight temperature changes. Water temperature between 100 and 120° F is maintained. Made by **T. G. McCann Co.,** Dept. A, 15 W. General Robinson St., Pittsburgh 12, Pa.

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grips tight without damaging work

A universal screw device that instantly clamps round, tapered or irregular objects for filing, drilling or shaping purposes is this Swedish-made Sevo vise. Its jaws consist of machined and ground flat plates which hinge or swivel in any direction to co-ordinate with shape of object held and can be moved in relation to each other. Work can rest on contact surface underneath. Main screw locks and retains jaws in their directional position. Only slight turn is required to grip object tightly. Two vise sizes are available with distance between jaws of 2½ and 5 in. respectively. Distributed by **De Wilde-Jones, Inc.,** 183 Stewart St., San Francisco 5, Calif.

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Yes, in *colors* for easier assembling, stocking, identification, etc. And industry is finding the Flo-master Felt-Tip Marker ideal for *all* types of marking. Its felt tip glides over any surface—metal, plastic, wood, etc. with broad, bold lines or fine lines. Flo-master semi-opaque inks—waterproof, non-smudging, fast-drying—come in a wide range of colors.

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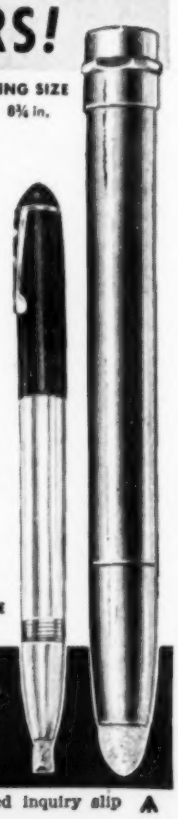
Ask your supplier or write to Cushman & Denison Mfg. Co., 153 W. 23rd St., N.Y. 11



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FELT-TIP MARKER

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Standard and Special Types Made for Your Particular Requirements

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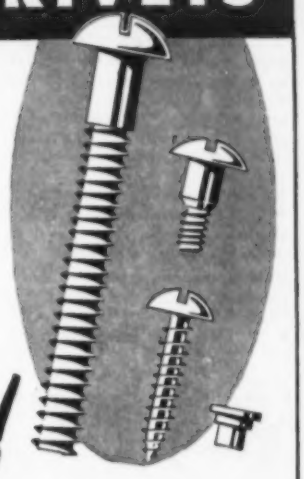

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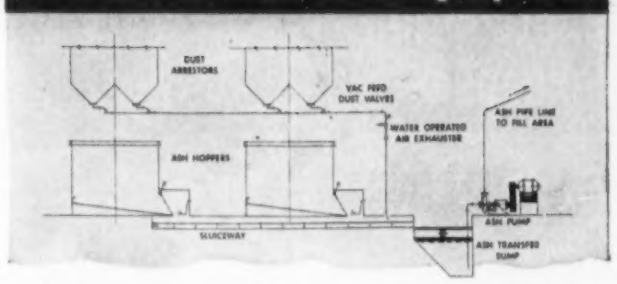
Need Large Capacity Ash-Handling?
CHECK WITH BEAUMONT ON A HYDRAULIC Ash-Handling System



A Beaumont HYDRAULIC System: is particularly suited for high capacity ash-handling; handles wet ash or dry, molten slag and large clinkers; fits any type of power plant arrangement; is completely enclosed, preventing dust or gas from escaping to the boiler room; and can be operated by one man on a part time basis.

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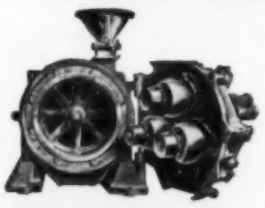

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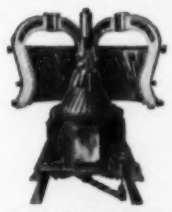

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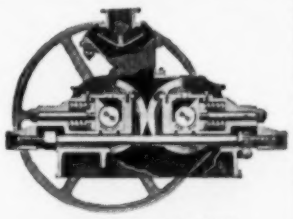
for intermediate and fine reduction down to ¼". Open door accessibility. Soft or moderately hard materials. Efficient granulators. Excellent preliminary Crushers preceding Pulverizers.



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AUTOMATIC RIVET SETTER
CUTS COSTS 3 WAYS

1 FASTENS FASTER . . . Only the speed of the operator limits the 912's riveting speed. Completely automatic. A push on the foot pedal automatically feeds, inserts and clinches the rivet.

2 DOES WORK OF SEVERAL MACHINES Quick change rotary hopper and raceway makes the 912 adjustable in 5 to 10 minutes to set different size rivets. Adjustable anvil height and 12-inch throat provide further versatility.

3 SAVES ON MAINTENANCE . . . The 912 is massively built to stand the shocks of constant use and is designed for quick, easy servicing and parts replacement.

If your assembly calls for 3/16" steel tubular rivets or smaller, of ¾" lengths or less, ask us to show you how the 912 can cut your fastening costs. Send a sample of your problem assembly (or blueprint) for a free fastening analysis.

FREE CATALOG *contains valuable engineering information and rivet specifications plus illustrated descriptions of 26 Chicago Automatic Rivet Setters.*

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CONDENSATION PUMPS

Dunham Condensate Pumps with side-mounted motors require little floor space, are low in first cost and inexpensive to maintain.

Rapid return of hot condensate to boilers saves fuel, saves makeup water . . . minimizes difficulties from boiler incrustation and system corrosion.

Dunham Pumps are easy to install without bars or bed plates. Completely wired, they're ready for operation when piping is connected. For full information, WRITE FOR BULLETIN 1401-14.

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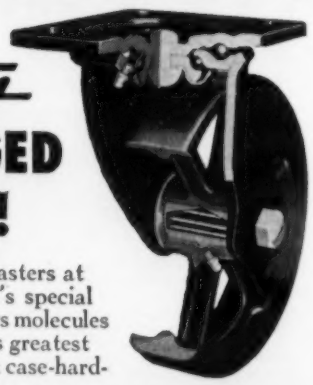

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speeds up heat treating operations

Speeding loading and unloading operations by eliminating single piece handling, Contro-Therm fork lift furnace loader also can be used as lift truck for carrying parts, jigs, tools, dies and other light work. Work to be heat treated is placed on frame of loader, which can handle several layers at one time. Entire load is picked up and inserted into furnace by fork bars on loader. Unloading is accomplished by inserting fork bars and withdrawing load, which then is wheeled to quench tank or next operation. Operator is protected from heat by built-in metal shield during entire operation. Mounting is on four swivel casters. Made by **A. D. Alpine, Inc.**, Dept. 250, 11837 Teale St., Culver City, Calif.

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for automatic charging of industrial lift truck batteries

Designed for mounting on shelf, motor-generator type battery charger accommodates 6 to 19-cell lead-acid batteries and nickel-iron-alkaline batteries of 10 to 30 cells used in lead and ride type industrial lift trucks. About size of tank type vacuum cleaner, charger weighs 190 lb, has control box mounted on side and fits on 6¾ x 8¼-in. shelf. Unit is automatic once timer is set, and voltage and current are adjustable.

Features, as recommended by Industrial Truck Association, include automatic disconnection of charger from power line and opening of charging circuit in case of power interruption, automatic restart upon resumption of power, automatic control of charging rate and automatic cut-off of battery and shutdown of charger when battery is fully charged. Equipment is single-circuit, operating on 3-phase, 60-cycle ac, and has generator-overload and motor-overload protection. Made by **General Electric Co.**, Schenectady 5, N. Y.

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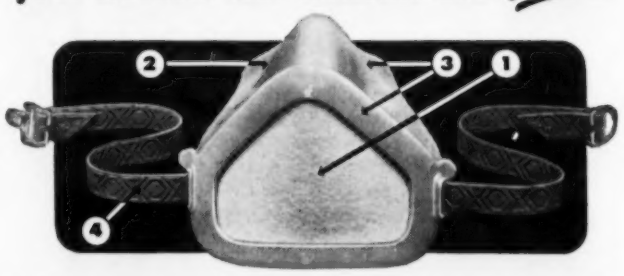

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With built-in variable flow control valve in head. Positive displacement piston type. Displacement capacity: 2 gal. per min. at 1500 RPM at 1250 PSI. Pressure limit 1250 PSI continuous. 1400 PSI for 15 sec. Operates at 3750 RPM, intermittent max. 4500 RPM. Rotates either direction without adjustment . . 19.50

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Pepper type. Pressure balanced. Off at neutral position. Piston type with built-in relief valves for limit of cylinder strokes. 5/8" AN tube size (7/8"-14 thread) inlet & outlet. Parts to cylinder are 1/2" AN tube size (3/4"-16 thread) 9.75

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Francis EST. 1880. **FACTORY-MILL & WAREHOUSE TRUCKS**

Cutting Handling Costs since 1880

3000-lb capacity

Complete Line — For every use. Standard sizes 27" x 48" and 30" x 54" in stock ready for immediate shipment.

Need more good trucks quick? Buy direct from the manufacturer and save —time AND money. Francis heavy duty, economical trucks feature strong iron work —hardwood frame—rigid construction. All carefully machine fitted. Steel rims or rubber tires.

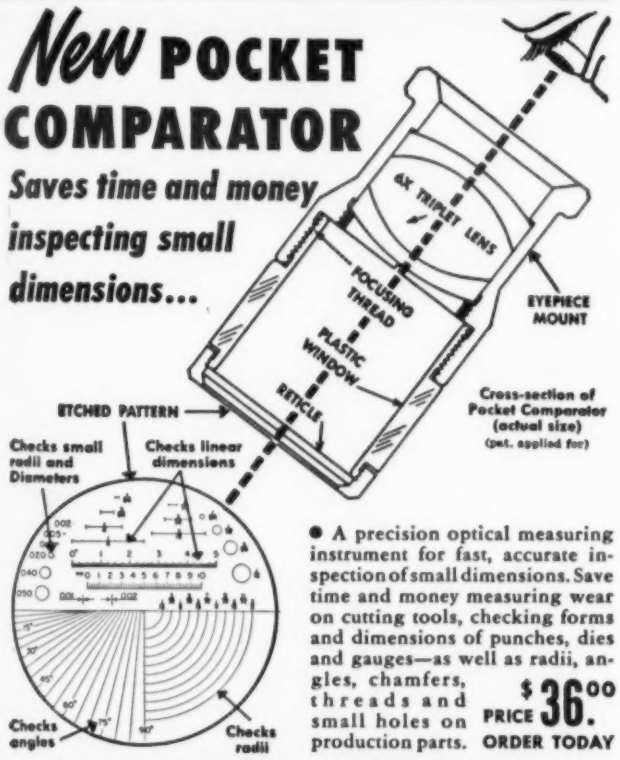
WRITE TODAY for catalog and prices

Manufactured by **HOOSIER FENCE CO. Inc.** DEPT. NED 1701 E. 38th St., Indianapolis, Ind.

For more details circle **NED-9000** on enclosed inquiry slip

New POCKET COMPARATOR

Saves time and money inspecting small dimensions...



● A precision optical measuring instrument for fast, accurate inspection of small dimensions. Save time and money measuring wear on cutting tools, checking forms and dimensions of punches, dies and gauges—as well as radii, angles, chamfers, threads and small holes on production parts.

PRICE $36.00 ORDER TODAY

a product of **BELL & HOWELL CO.** distributed by

Write for FREE descriptive folder

See Your National Tool Co. Representative or Local Jobber

NATIONAL TOOL CO. 11210 Madison Avenue Cleveland 2, Ohio

For more details circle **NED-9001** on enclosed inquiry slip

A few turns will do it!...

BUCKINGHAM... Thread RESTORERS

Just slip on, tighten and turn. That's all there is to it—it's that simple... and quick... And what *results!*

Flats and nicks are eliminated—even heavily rusted and corroded threads are cleaned pronto. No more drilling or hack sawing to restore damaged male threads —when you have a Buckingham Thread Cleaner handy.

Follows the pitch of any right or left hand thread—sizes range from ¼" to 4" root diameter. No need to insert or change dies. Cutting jaws adjust easily to proper size on the threads. See your nearest Buckingham dealer—or write.

6103 —	¼" to 1" root diam.	$ 6.50
6203*—	¼" to 1" root diam...	8.50
6104 —	1" to 2 9/16" root diam.	12.00
6106 —	2" to 4" root diam...	27.50
6204*—	1" to 2 9/16" root diam.	21.00

*Short swing type.

BUCKINGHAM MANUFACTURING CO., INC. 65-67 Travis Street Binghamton, N. Y.

For more details circle **NED-9002** on enclosed inquiry slip

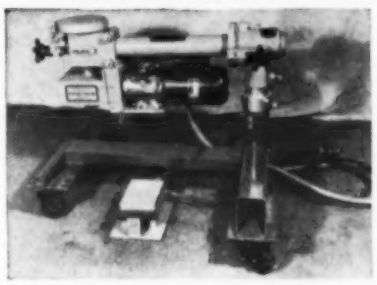
CONVEYOR-FEEDER UNIT handles small metal parts through various processing operations

Small forgings, castings, stampings and machined parts can be handled during heat treating, sand blasting, washing, cleaning or other processing operations by continuous conveyor-feeder unit. Units are custom-fabricated to meet individual requirements. Shown is 16-ft high double-row conveyor fitted with two 6-in. wide hinged steel belts. Intended for recessing into floor, unit can also be used as hopper storage bin prior to final discharge of parts for processing. Design of flights prevents jamming of parts in turns of hinged belt.

Conveyor units can be furnished in almost any belt width required. Height of unit is dependent upon application, and hopper size can be varied to meet needs. Variable speed drive regulates flow from one processing stage to another. Made by **May-Fran Engineering, Inc.**, 1711 Clarkstone Rd., Cleveland 12, O.

For more details circle **NED-9003** on enclosed inquiry slip

POWER ROTATOR for balanced positioner work table



Motorized rotation of work tables on models 14C500, 14C1000 and 14B200 Universal balanced positioners can be achieved with redesigned Universal power attachment. With variable speed adjustment from zero to 6 rpm, unit offers quick engagement and disengagement of power transmission for selection of power or manual rotation and positioning. Worm and worm gear final drive is adjustable to eliminate back-lash on work table, and friction clutch coupling allows operator to position work piece on rotational axis whether table is turning or not. Unit can be installed in 5 to 10 minutes by removing original work table spindle block assembly and slipping on new unit. It operates on 110/220-v, single-phase, 60-cycle ac. Made by **Aronson Machine Co.**, Dept. ND, Arcade, N. Y.

For more details circle **NED-9004** on enclosed inquiry slip

DO YOU KNOW? Those engaged in pipe line work are aided in calculating cathodic protection data by slide rule which is named "Magnesium Anode Cathodic Protection Guide." With pipe size and soil resistivity known, calculator gives required magnesium anode size and life, length of pipe protected and current output. Slide rule offered free by American Smelting & Refining Co., Federated Metals Div., Dept. NED, 120 Broadway, New York 5, N. Y.

For more details circle **NED-9005** on enclosed inquiry slip

for Better Belt Joints

To keep belts in service longer, use only GENUINE Clipper Belt Hooks applied with Clipper Belt Lacers.

use Clipper Belt Hooks

Clipper Hooks are made of the finest quality wire—BETTER than ever before—produced for our exclusive use. Hooks hold with firm, sure grip—give longer satisfactory service.

and Clipper Belt Lacers!

The Clipper No. 9 Portable Lacer laces belts up to 6 inches wide in one quick, easy operation. Under powerful pressure hook legs are embedded flush with the surface of the belt and points clinched, making a perfect joint. Phone your mill supply jobber for a demonstration!

No. 9 Portable Lacer

CLIPPER BELT LACER COMPANY, GRAND RAPIDS 2, MICHIGAN, U.S.A.

Clipper BELT LACING EQUIPMENT

For more details circle **NED-9006** on enclosed inquiry slip

IT'S TIME TO ACT FAST!

Reach Anyone Instantly

Boost Output

Cut Costs

SAVE TIME WITH ELECTRONIC AMPLICALL INTERCOMMUNICATION

Gear up *now* for bigger output and increased efficiency. AMPLICALL provides 2-second speech contact between all departments for fast relay of orders and information. Stops wasteful walking and waiting —keeps plant and office personnel on the job every working minute—takes the load off busy switchboards. AMPLICALL *gets more work done for every operations dollar spent*—pays for itself quickly. Get the full details *today*.

SEE YOUR CLASSIFIED PHONE BOOK under "Intercommunication" for your AMPLICALL specialist, or write us direct

Electroneering is our business

SOUND EQUIPMENT **Rauland** INTER-COMMUNICATION

RAULAND-BORG CORPORATION • 3523-D ADDISON ST., CHICAGO 18, ILL.

For more details circle **NED-9007** on enclosed inquiry slip

FOR SPACE HEATING AT ITS BEST!

CHROMALOX *Electric* **UNIT HEATERS**

THE HEAVY DUTY BLOWER-TYPE SPACE HEATERS for PORTABLE or PERMANENT COMFORT HEATING

For complete data on Space Heating electrically for your needs. WRITE FOR CATALOG 50

Now it's easy to heat the smallest office or largest shop to a comfortable level in coldest weather with Chromalox Electric Unit Heaters. Units are available for portable use or permanent mounting to walls and ceiling, and only Chromalox gives you famous Chromalox Heating Elements. Motor driven fans assure positive air circulation which eliminates cold spots. On larger models, ducts can be used to convey heated air to desired areas. Automatic thermal cutouts assure protection against overheating.

IB-18

Industrial Div., EDWIN L. WIEGAND CO., 7509 THOMAS BLVD., PITTSBURGH 8, PA.

See other advertisement on page 4

CHROMALOX ELECTRIC HEATING AT ITS BEST!

For more details circle **NED-9008** on enclosed inquiry slip

GET THE FACTS NOW ON THIS REVOLUTIONARY NON-SLIP FLOOR PLATE

A. W. ALGRIP Eliminates Costly Slipping Accidents

- A. W. ALGRIP is the one and *only Abrasive Rolled Steel Floor Plate* in the World.
- Wet or dry it prevents slipping!
- Even on steep inclines A. W. ALGRIP won't let you slip.
- A. W. ALGRIP has over 1001 plant and product applications.
- Easy to install, A. W. ALGRIP never requires maintenance.

THERE IS NEVER A SLIP—ON A. W. ALGRIP

Free 8-Page Booklet giving all the important data you need on A. W. ALGRIP. Write for booklet B-4.

A. W. ALGRIP ABRASIVE ROLLED STEEL FLOOR PLATE

Product of **ALAN WOOD STEEL COMPANY** Conshohocken, Penna.

125 Years of Iron and Steel Making Experience

Send me a copy of your 8-page A. W. ALGRIP Booklet B-4

Name_____

Title_____ Company_____

Address_____

City_____ Zone_____ State_____

Other Products: PERMACLAD Stainless Clad Steel • A. W. SUPER-DIAMOND Floor Plate • Plates • Sheets • Strip • (Alloys and Special Grades)

For more details circle **NED-9009** on enclosed inquiry slip

FRESH AIR REDUCES FATIGUE GIVE 'EM AIR— FRESH AIR! WATCH PRODUCTION CLIMB!

Model T Roof Ventilator; Hood Opens Locked in Any Desired Position With or Without Dampers Propeller Pitch Adjustable

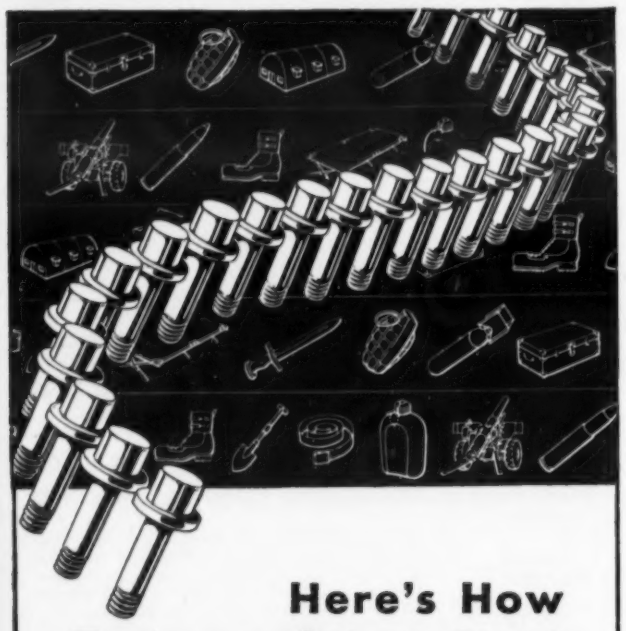
Industrial Air Model T Roof Ventilator can be used as a supply fan or to discharge contaminated air. Rugged construction. Sizes for all specifications from 18" through 72" in diameter, belt or direct driven operation.

Duct Fans
Direct or Belt Driven
Utility Man Cooler
Portable Man Cooler
Roof Ventilators
Duct Type Fan
Duo Duct

Represented in All Principal Cities
Write Dept. 1101 for complete catalog

THE HARVEY P. BERTRAM CO.
1008 W. Ninth St. Cincinnati, Ohio

For more details circle NED-9010 on enclosed inquiry slip



Here's How Townsend Cuts Steel Use and Reduces Cost On This Defense Item

The part shown above for use in a smokeless powder box was originally made from bar stock which scrapped hundreds of tons of critical steel. Townsend engineers suggested that by a slight change in design the part could be cold headed from wire thus saving considerable steel and reducing the cost greatly. We are not permitted to reveal the number of parts made, but the aggregate savings both in money and steel was substantial.

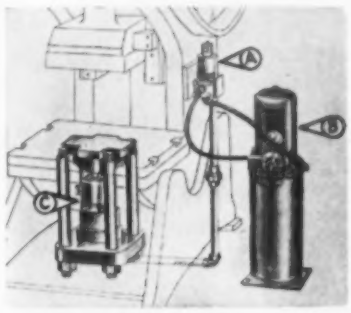
Townsend products for defense range from hob nails for field boots to rivets for half tracks — from special nails for gliders to artillery firing pins — even balls for canisters.

To learn more about the savings in time, money and critical materials that are possible when you have Townsend design and produce your small parts and fasteners, write or phone today.

Townsend
COMPANY • ESTABLISHED 1816
Plants—New Brighton, Pa. • Chicago 38, Ill.
Cherry Rivet Company Division, Los Angeles, California
Sales Offices in Principal Cities

For more details circle NED-9011 on enclosed inquiry slip

HYDRAULIC PRESS BED JACK
assures constant work pressure



Fastened directly to bolster plate or press bed frame, hydraulic press bed jack protects power press from overload damage and assures constant work pressure at point of operation at all times. In picture, B refers to hydropneumatic pumping unit that operates off average shop air line, A is control valve that can be set at any desired tonnage and C is jack which fastens to bolster plate or frame. Jack can be used on riveting, marking, stenciling, assembling, forming and swaging operations. Equipment can be applied to any power press and removed when not needed. It is made in eight sizes to a maximum of 200 tons. Made by **Dayton Rogers Mfg. Co.**, 2822 Thirteenth Ave. S., Minneapolis 7, Minn.

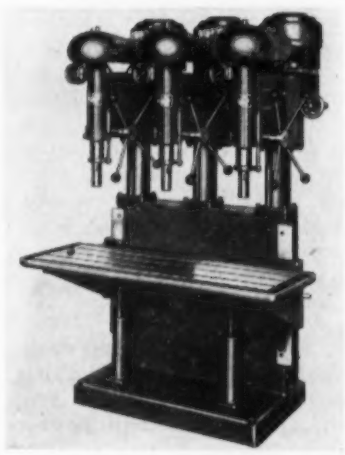
For more details circle NED-9012 on enclosed inquiry slip

PIPE & TUBE MILL
utilizes induction weld process

From ½ to 2-in. American Standard merchant pipe and rigid conduit as well as up to 4-in. diameter E.M.T. conduit can be produced at high speed with mill adapted to Tocco induction heating principle of welding. Pipe is made from coiled Bessemer hot rolled strip or skelp and cold-formed into tubular shape prior to welding. Precleaning, pickling, oiling or heat treating before or after welding is unnecessary. Mill also has ability to use continuously fed strip, slit from multiple width coils. Operating speeds range from 165 to 240 fpm or more, depending on size and stock thickness. Mill is made by **Yoder Co.**, 5501 Walworth Ave., Cleveland 2, O.

For more details circle NED-9013 on enclosed inquiry slip

DRILLING MACHINE
three spindle unit has 25-in. swing



Among features of model ME-25 multiple spindle high production drilling machine are 25-in. swing, variable speed drive for obtaining correct spindle speed for any drill size from ⅛ to 1 in., and large table with coolant trough. Powered by 1½-hp axial air gap motor, machine has ¾-in. capacity in steel and 1 in. in cast iron. Distance between spindles is 14⅞ in. Table has working surface of 45 x 14½ in. and vertical adjustment of 12¼ in. Self-locking speed control offers five options of spindle speeds, each with 4 to 1 ratio, ranging from 206-825 to 540-2160 rpm. Tachometer on front of machine shows exact speed. Made by **Sibley Machine & Foundry Corp.**, 20 E. Tutt St., South Bend 23, Ind.

For more details circle NED-9014 on enclosed inquiry slip

Simplest Way

to clean conveyor belts!

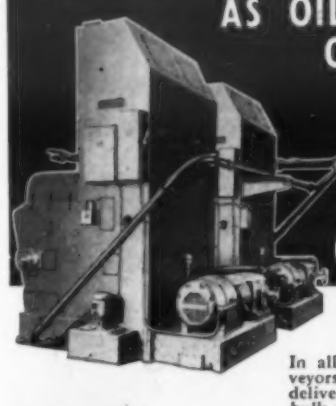
Multiple-blade S-A SPRING TYPE CONVEYOR BELT CLEANER removes every particle of wet or dry material from moving belt leaving surface practically dry and clean. Blade overlap prevents passage of dirt or slime . . . blades climb freely over belt splice. Cleaner installs easily on any belt conveyor — mounted on return run just back of discharge pulley. It has no moving parts — no power is required. Hand lever permits ready adjustment of wiper blade pressure against belt.

Write today for complete data . . . request copy of Belt Cleaner Bulletin.

1901-1951
50 years experience with bulk handling
STEPHEN S-A ADAMSON MFG. CO.
12 Ridgeway Ave., Aurora, Ill. Los Angeles, Calif. • Belleville, Ont.
Designers and Manufacturers of all Types of Bulk Materials Handling Equipment

For more details circle NED-9015 on enclosed inquiry slip

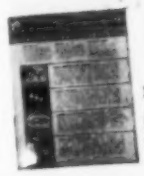
SOLVE PROBLEMS AS OILGEAR AND OTHERS HAVE with *Hapman* TUBULAR CONVEYORS



For Wet or Dry Flowable Materials

In all kinds of plants, Hapman Conveyors are solving tough problems. They deliver unique advantages in handling bulk materials such as:

METAL CHIPS (from machine tools) WELDING FLUX — FLOUR — CHEMICALS — COAL — FOUNDRY SAND — GRINDING SLUDGE — DUST — GROUND CORK — SLAG — CARBON BLACK — MALT



Learn how Hapman Conveyors may solve your problem — WRITE FOR NEW BULLETIN ND-1151

Look at these Oilgear Vertical Surface Broaching Machines, for example. One Hapman rubber flighted sealed-pin chain Conveyor removes metal chips from two units — continuously, at low cost — with only ½ h.p. motor!

Hapman CONVEYORS, INC.
DIVISION HAPMAN-DUTTON COMPANY
KALAMAZOO MICHIGAN

For more details circle NED-9016 on enclosed inquiry slip

NOW for complete protection
FROM THE WET • GREASE • OILS • ORDINARY ACIDS

TOWER'S FISH BRAND *NEOPRENE

These sturdy, durable, 100% DuPont **NEOPRENE** garments give that extra service to those who require protection from greases, oils, and most acids. There is a TOWER protective garment especially adaptable for every type of industrial activity. We will be glad to recommend the garment which best meets your individual requirements.

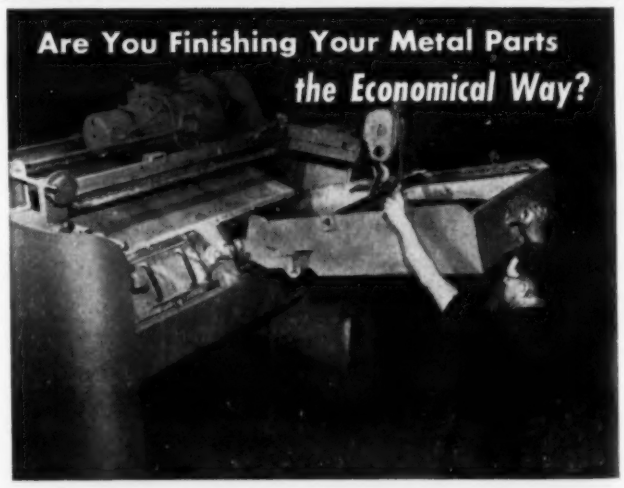
**A chemical rubber product of the DuPont Company*

For folder of styles and detailed information write Department SF.

NEOPRENE RUBBER
TOWER'S FISH BRAND A. J. TOWER CO. TOWER'S ARROW BRAND
24 SIMMONS ST., BOSTON, MASS.

For more details circle NED-9017 on enclosed inquiry slip

Are You Finishing Your Metal Parts *the Economical Way?*



with ALUNDUM Tumbling Abrasive and the Barrel-Finishing Process?

YOU can remove objectionable heat scale, burrs, tool marks and dirt from your metal parts quickly and economically with the barrel finishing process and with ALUNDUM Tumbling Abrasive—the ideal barrel finishing medium. You can finish large quantities of parts to exact dimensions and degrees of surface finish and prepare them for plating—ALL IN ONE OPERATION.

If you don't have barrel finishing equipment, Norton will be glad to make test runs for you.

NORTON COMPANY • WORCESTER 6, MASS.
Distributors in All Principal Cities

NORTON ABRASIVES

For more details circle NED-9018 on enclosed inquiry slip

NEW DE LAVAL GS PUMPS on their way to you in

2 WEEKS

From our shelf to your plant in two weeks! That's how fast you can get a standard centrifugal De Laval pump. We now have on hand GS pumps, motors and bedplates in sizes 2½", 3" and 4" ready for assembly and shipment. Capacities to 280 gpm, heads to 75 ft, at 1750 rpm. • Also available for immediate delivery are bare pumps in the same sizes with capacities to 400 gpm, heads to 230 ft, at 3500 rpm. We can assemble and ship these units within two weeks after receipt of the motor. • Want complete details quickly? Simply use inquiry forms.

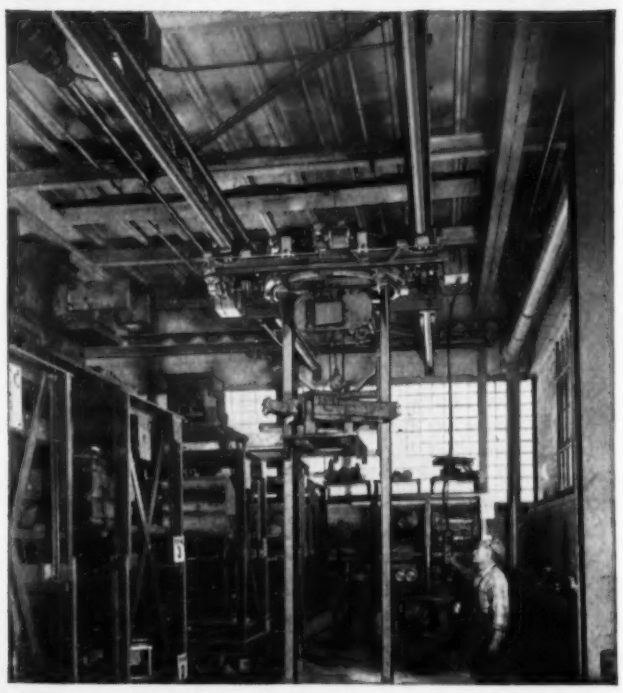
DE LAVAL STEAM TURBINE COMPANY
Trenton 2, New Jersey

50th DE LAVAL Anniversary

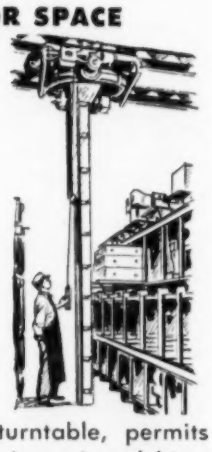
DL103-B

For more details circle **NED-9019** on enclosed inquiry slip

60% MORE DIES NOW STORED



ONE MAN NOW CONTROLS DIE STORAGE WITH 60% MORE DIES STORED IN THE SAME FLOOR SPACE



Without extra building, a large Mid-Western manufacturer of internal combustion engines has solved a difficult die storage problem by installing a Louden Monorail System. Capacity of the storage area has been jumped 60%, "housekeeping" efficiency has been increased, while the labor force has been reduced from several men to one-man control.

The "tiering" trolley, operating on a double-girder crane with turntable, permits easy, accurate positioning of dies in assigned bins. Complete push-button operation allows one-man control. The skid method of handling eliminates damage caused by slings or dropping.

FREE BOOK . . . Case histories of successful Monorail applications. Write for "Economical Material Handling" today.

THE LOUDEN MACHINERY COMPANY
5122 S. Superior Ave., Fairfield, Iowa

Louden

OVERHEAD MATERIAL HANDLING

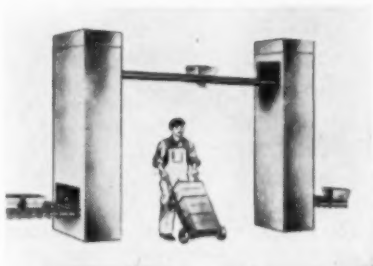
For more details circle **NED-9020** on enclosed inquiry slip

DETACHABLE AIR CONNECTORS
self-locking connectors lose no air

Interchangeable and easily detachable air connector is fully automatic and eliminates need for shut-off valves in line while tools are being changed or cleaned. Self-locking connectors prevent any air loss, when detached, but when coupled with hose and tool, air passage is opened automatically. Ball type latch eliminates need for tools in making connection, only a slight push being required. Air pressure itself assists in detaching insert nipple. Swivel type coupling allows free rotation of stem without tangling lines. Connections are made for five hose sizes from ¼ through ⅜-in. ID. Made by **DeVilbiss Co.,** 301 Phillips Ave., Toledo 1, O.

For more details circle **NED-9021** on enclosed inquiry slip

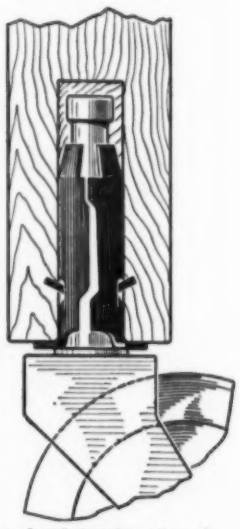
CONVEYOR LIFTS
clear conveyor line obstacles



Material flow between floors is speeded by reciprocating lift which can be loaded and unloaded on same or opposite sides. Requiring minimum amount of space, lift clears obstacles in conveyor lines by installation of two lift units. Limit switches and automatic spacing devices provide trouble-free operation. Conveying equipment can be automatically or manually controlled. Made by **Conveyor Specialty Co.,** 40 Newport Ave., North Quincy, Mass.

For more details circle **NED-9022** on enclosed inquiry slip

CASTER FASTENER
holds casters in furniture



Formed of heat treated 0.031-in. thick spring steel, this Speed Clip fastener prevents casters from dropping out of furniture when it is moved. Tubular clip is pushed into slightly undersized hole in wooden furniture by drift pin. Two retaining barbs forced outward become imbedded in wood. When caster stud is inserted and snapped into place, it is retained by tapered end of clip which can be used with any standard caster. Clip is 1-17/64 in. long and has outside diameter of 0.390-in. Made by **Tinnerman Products, Inc.,** Dept. 14, Box 6688, Cleveland 1, O.

For more details circle **NED-9023** on enclosed inquiry slip

Since 1887

MILWAUKEE WROT WASHERS

Better **WASHERS**

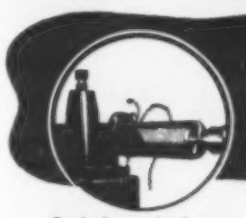
...Competitively Priced

Large volume production, the most advanced methods and facilities, plus more than 60 years of continuous experience in the manufacture of Washers, are factors that enable us to offer you top quality washers and stampings at competitive costs. Over 22,000 sets of dies for making Washers of every type (Standard and Special), from every type of material, for every purpose, in any finish. STAMPINGS of all descriptions; Blanking, Forming, Drawing.

Submit your blueprints and quantity requirements for estimates.

WROUGHT WASHER MANUFACTURING CO.
The World's Largest Producer of Washers
2256 S. BAY ST., MILWAUKEE 7, WIS.

For more details circle **NED-9024** on enclosed inquiry slip



Increase YOUR HOURLY OUTPUT!

On **Lathes** and other machines using centers, CMD LUBRICANTS prevent dangerous seizure, waste and costly delays.

On **Die Set Pins** and **Bushings** CMD LUBRICANTS minimize wear and time-out to re-lubricate.

On **Steady-Rests** CMD LUBRICANTS assure smooth, true turning of work and complete freedom from scoring and seizure.

Lubricate Machines with Longer-Lasting

CMD *Anti-Scoring* **LUBRICANTS**

For smooth performance and greater man-hour production, protect your machines with CMD Anti-Scoring Lubricants. Because they withstand pressures greater than 50,000 pounds per square inch and will not mulsify with liquid coolants, they protect bearing surfaces better and longer. Illustrated here are just a few of the many applications where CMD Lubricants are cutting costs. But see for yourself. Test CMD Lubricants on your toughest operations.

Write for FREE Samples! Address Dept. 11-NED

CHICAGO MANUFACTURING & DISTRIBUTING CO.
1928 W. 46th St. • Chicago 9, Ill.

For more details circle **NED-9025** on enclosed inquiry slip

Cut Sheet Metal Faster - Cleaner

with Stanley U218 Unishears

Far superior to hand snips, U218 Unishears cut 18 gauge sheet steel at 15 feet per minute. What's more, they leave a smooth, finished edge—save you filing, de-burring, and trimming. Self-feeding principle advances work through blades—requires little operator effort. U218 cuts either straight or curved lines. Available for operation on any standard voltage, A.C. or D.C. Ask your supplier to show you the U218. Or write Stanley Electric Tools, 418 Myrtle Street, New Britain, Connecticut.

HARDWARE • TOOLS • ELECTRIC TOOLS
STEEL STRAPPING • STEEL

STANLEY
Reg. U.S. Pat. Off.

For more details circle **NED-9026** on enclosed inquiry slip

"PAID FOR ITSELF ON ONE JOB!"

Foredom FLEXIBLE SHAFT MACHINES

have many time-saving applications but users often find a Foredom REPAYS ITS COST on ONE JOB through eliminating an expensive disassembly and re-set job on such tasks as removing high spots on gears and touching up tools or cutters in a production set-up. The secret's in Foredom's extra small handpieces which handle like a pencil and penetrate into spots inaccessible for other tools.

Indispensable for "SMALL WORK" GRINDING AND FINISHING JOBS

Foredoms are profitable additions to ALL 3 departments—Production, Tooling and Maintenance. 5 HANDPIECE TYPES (all instantly interchangeable) produce versatility to a marked degree.

SPOT THEM LIBERALLY ABOUT THE PLANT for emergency and every-day use. Their cost is negligible. Prices start at $17.75.

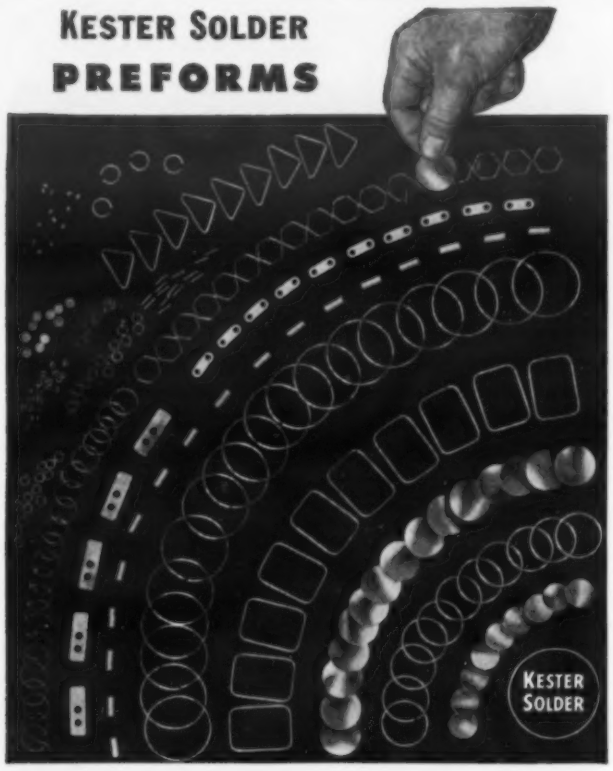
Quality Tested Since 1922

SEE YOUR INDUSTRIAL SUPPLY DISTRIBUTOR. IF HE CANNOT SUPPLY YOU WRITE TO US. MAIL COUPON FOR CATALOG.

FOREDOM ELECTRIC CO., Dept. 5248
27 Park Place, New York 7, N. Y.
Send your catalog No. 5248, showing different uses of Foredom Flexible Shaft Machines.
Name .....
Address .....
City & Zone ..... State .....

For more details circle **NED-9027** on enclosed inquiry slip

KESTER SOLDER PREFORMS



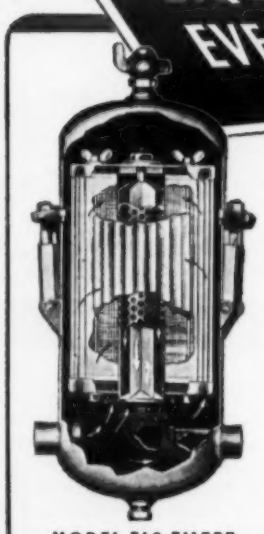
Use Kester *Soft Solder* Preforms for flame, oven, and induction soldering. Write today for samples and complete information.

KESTER SOLDER COMPANY

4201 Wrightwood Ave., Chicago 39 • Newark, N. J. • Brantford, Canada

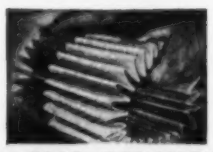
For more details circle **NED-9028** on enclosed inquiry slip

MOST VERSATILE LIQUID FILTER EVER DEVELOPED



MODEL ELS FILTER
(Sectional View)

• Provides unusual efficiency and economy. *Permits use of any medium that comes in sheet form and can be crimped.* Both first cost and maintenance cost low. Radial Finned Insert provides large filtering area in small space.



NEW **SLIP-ON INSERT**
FOR QUICK CHANGE OF MEDIUM

Complete Data on Request

DOLLINGER PROTECTOMOTOR STAYNEW FILTERS

DOLLINGER CORPORATION

49 CENTRE PK...ROCHESTER 3, NEW YORK

For more details circle **NED-9029** on enclosed inquiry slip

CUTS METAL FAST AND ACCURATELY

Whether you shear 26 gauge or one inch thick metal, you want smooth, straight, burrless cuts. Resulting pieces must be accurate within close tolerances.

In addition, you want a machine that performs for long periods without need of adjustment and maintenance. It must be easy to operate and be provided with ample safety features. Knives must stay sharp after thousands of cuts.

No machine meets these requirements better than a Steelweld Shear. We urge you to get the facts.

STEELWELD Pivoted-Blade SHEARS CATALOG No. 2011

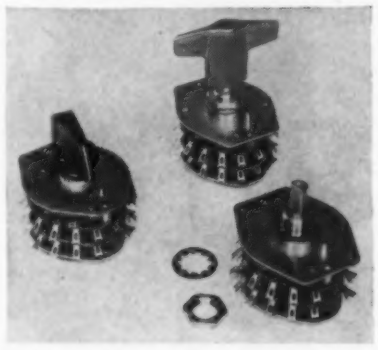
Send for free copy of catalog No. 2011.

THE CLEVELAND CRANE & ENGINEERING CO.
6633 East 282nd St., Wickliffe, O.

STEELWELD SHEARS

For more details circle **NED-9030** on enclosed inquiry slip

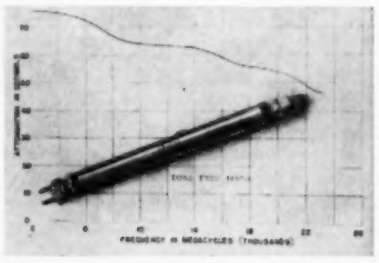
ROTARY SELECTOR SWITCH
multidecks offer many contacts



Meeting government specifications, JA type rotary selector switches are available in 16, 24 and 30 position models. Although two deck construction is standard, switches can be supplied with practically any number of decks. Each deck is self-contained and can be removed or replaced readily. Silver contacts are rated 3 amp on 125-v ac. O-ring seal on shaft and mounting bushing allows watertight mounting. Made by **United States Instrument Corp.**, 407 Broad St., Summit, N. J.

For more details circle **NED-9031** on enclosed inquiry slip

HIGH FREQUENCY FILTER
for vhf, uhf and radar frequencies



Capable of passing 100 amp and having high attenuation in very high frequency (vhf), ultrahigh frequency (uhf) and radar frequencies is Tobe 1457-1 power line filter. The $10\frac{3}{16}$ x $\frac{7}{8}$-in. unit can be inserted in 110, 220, or 440-v ac-dc line for applications such as screen rooms, radar equipment, radio transmitters, x-ray machines and similar high frequency equipment. Made by **Tobe Deutschmann Corp.**, 922 Providence Highway, Norwood, Mass.

For more details circle **NED-9032** on enclosed inquiry slip

TRACKAGE SYSTEM
can be installed anywhere in factory

Moving of heavy loads in plant or warehouse can be facilitated by Epco trackage system which can be installed almost anywhere in factory. Loads can be moved along straight trackage and turned on turntables to change direction. Installation can be on drawbridge connecting two loading platforms, as shown, or on floor scale to permit weighing en route. Trackage becomes part of floor, is not damaged by foot or truck traffic crossing it and can be adapted to any weight loads. Made by **Engineering Products Co.**, Dept. ND, 122 S. Michigan Ave., Chicago 3, Ill.

For more details circle **NED-9033** on enclosed inquiry slip

SAFETY EQUIPMENT FOR ALL INDUSTRIES

For Handling Blanks
OF
METAL • GLASS • FIBRE
PLASTIC • LINOLEUM • TILE
AND OTHER NON-POROUS MATERIALS

PREVENTS INJURIES

SAVES TIME

IPCO SAFETY PARTS LIFTER

Speeds up the job on parts that are difficult to handle with the fingers. Practical for flat or curved surfaces, damp or oily parts. Instantly affixed or released at the option of the operator. Cup diameter 2½", length over all 15".

Send for Bulletin L-111

IPCO *Safety Equipment for all Industries*

INDUSTRIAL PRODUCTS COMPANY

2807 N. FOURTH STREET • PHILADELPHIA 33, PA.

For more details circle **NED-9034** on enclosed inquiry slip

FREE! Stainless Fastening Selector

Handy slide-chart makes your job simpler, saves valuable time! Instantly identifies A-N Nos. pertaining to stainless steel nuts, screws, bolts, rivets, cotter pins, washers; gives sizes, other data. Write for your FREE copy of Chart 51N TODAY!

Anti-Corrosive Metal Products Co., Inc.

Manufacturers of STAINLESS STEEL FASTENINGS

CASTLETON ON HUDSON NEW YORK

For more details circle **NED-9035** on enclosed inquiry slip

Are You Seeking

to

✶ **reduce the frequency of your painting?**
✶ **improve the appearance of your plant?**
✶ **increase your safety factor?**

The answer to these ever-present plant problems points directly to MD 565W ALUMINUM PASTE and its use as an all-purpose pigment in the formulation of aluminum paints for industrial maintenance use.

The particle size characteristics of MD 565W slow up the chemical reaction of the paint to weather and atmospheric conditions. This causes the color change to be at a much slower rate, which means that each painting lasts longer.

MD 565W helps give your equipment and plant interiors (and exteriors, too) that pleasing appearance of being painted just "last week." Paints made with it approach a whiter, brighter finish than is possible with any metallic pigment.

MD 565W provides a smooth even finish without glare. At the same time, it brightens dark corners, thus promoting increased safety.

Specify that MD 565W ALUMINUM PASTE be used in the formulation of the ready-mixed Aluminum Paint you purchase for your painting. In those paints which you formulate, specify MD 565W in your pigment purchases.

SEND FOR—your copy of Bulletin 506

METALS DISINTEGRATING COMPANY, INC.

General Offices: Elizabeth B, New Jersey
Sales Offices: Chicago, Ill., Cleveland, Ohio

Plants: Elizabeth, N. J., Manchester, N. H., Berkeley, Calif., Emeryville, Calif.

MD Since 1916

ALUMINUM PASTES
ALUMINUM POWDERS
GOLD BRONZE POWDERS

For more details circle **NED-9036** on enclosed inquiry slip

Electricator Multi-Dimension Gage

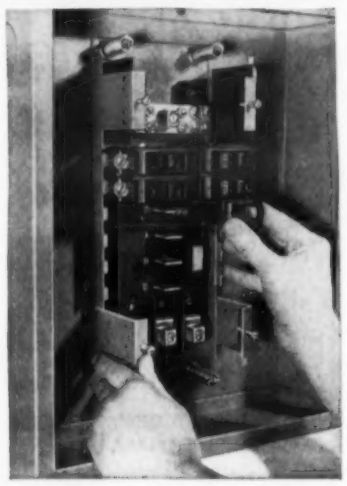
...ONE QUICK LOOK TELLS ALL!

Whether it's shells or shafts, fuses or jet engine blades — whether it's two, or twelve, or more dimensions, you can tell at a glance if all are within tolerance or not; for diameter or concentricity, and for length or any other dimension. You can also find out quickly *how much* any dimension is "off" — saving oversize pieces for reworking. This is possible because the Federal-Electricator units combine Dial Indicator graduations with electrical tolerance contacts. Tell us your requirements, and let us figure out the Gage that will tell you what you want to know quickly and positively. FEDERAL PRODUCTS CORP., 1711 Eddy St., Providence 1, Rhode Island.

FEDERAL

Largest manufacturer of indicating type gages . . . exclusively.

▲ For more details circle **NED-9037** on enclosed inquiry slip ▲



NEW CLASS I PANELBOARD

IS *FIRST* WITH PLUG-IN BREAKER

Trumbull's new line of NLTQ Panelboards introduces the first *plug-in* circuit breaker with quick-make, quick-break. Also: thermal-magnetic protected, physically interchangeable breakers.

OTHER NEW FEATURES

Interior—spring-mounted, self-aligning.
Molded-in-plastisol busbar and stab assembly.
Sequence phasing—in all sizes

Write for Bulletin TEB-14, THE TRUMBULL ELECTRIC MANUFACTURING COMPANY, Plainville, Conn.

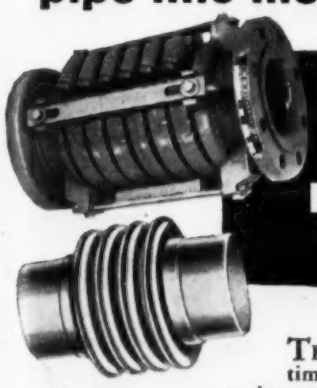
TRUMBULL ELECTRIC

Department of General Electric Company

▲ For more details circle **NED-9038** on enclosed inquiry slip ▲

MAINTENANCE-FREE

pipe line motion control



with CMH EXPANSION JOINTS

CMH Expansion Joints are made in various types for pressures up to 5500 psi., temperatures to 1600° F. Sizes, ⅜" to 48" I.D. Available in copper, stainless steel or other alloys. Flanged or welding ends.

THERE'S no need to spend time and money on periodical maintenance of expansion joints. CMH corrugated expansion joints require *no* maintenance, give long trouble-free service. Suitable for control of axial, lateral or radial motion in piping.

Write for descriptive literature which gives all the facts.

CHICAGO METAL HOSE CORPORATION
1343 S. Third Ave. Maywood, Ill.
Plants at Maywood, Elgin and Rock Falls, Ill.
In Canada: Canadian Metal Hose Co., Ltd., Brampton, Ont.

CMH ONE DEPENDABLE SOURCE for every flexible metal hose requirement

▲ For more details circle **NED-9039** on enclosed inquiry slip ▲

OPTICAL COMPARATOR

seven magnifications available for precision inspection work

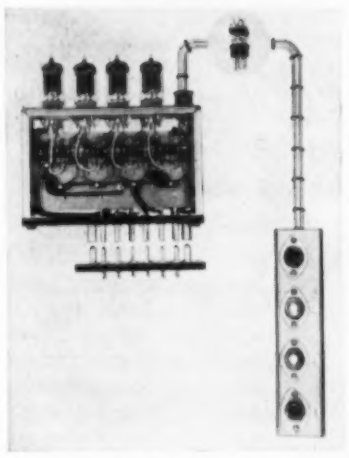
Color filters for varying intensity and shading of light, staging assembly which provides large working space, stage and workpiece swinging to one side to permit lens change and provision for special production type fixtures to be mounted on stage carrier base are features incorporated in Century model C-100 optical comparator. Ciptar-Scope optical system provides long focal lengths, maximum light, large objective areas and sharp definition. Focal lengths average in excess of 3 in. Screen image is oriented with respect to position and movement of projected part.

Magnifications of 10, 20, 25, 31¼, 50, 62½ and 100X are obtainable as standard equipment. The 16 x 20-in. sight-line screen and frame permits use of drafting instruments and vernier protractors for direct tracing and measurement of protected images from straight edge guide bar. Made by **Portman Instrument Co.**, 6-A Manhasset Ave., Port Washington, N. Y.

▲ For more details circle **NED-9040** on enclosed inquiry slip ▲

ELECTRONIC COUNTER DECADE

miniature models handle 30,000 and 130,000 counts per second



Miniature version of four-tube electronic counter decade is one-third smaller than standard model, measuring 6⅛ x 6½ x 1⅛ in., including tubes. Two available models differ only in maximum counting capabilities with model 12 rated up to 130,000 counts per second and model 13 up to 30,000 counts per second. Four ¼-watt neon glow lamps are arranged in 1-2-4-8 decimal coding for adaptability to computer circuitry and recording devices using four stylii. This facilitates easy counter reading even under poor light and at wide angles.

Each lamp is connected to one of four counting stages and indicates that associated stages are functioning correctly. Counter stages are arranged so that progression of count can not skip over stage having tube failure. Decades are available with remote panel-mounted four-lamp readout or with plug-in neon cluster, and come as separate components or incorporated in standard counting and timing equipment. Made by **Potter Instrument Co.**, 115 Cutter Mill Rd., Great Neck, N. Y.

▲ For more details circle **NED-9041** on enclosed inquiry slip ▲

SAFETY IS THE BEST POLICY IN LOAD BINDERS

THE CANTON "TAKE-UP" ACTION

picks up slack, binds in one operation. Design and heavy duty construction eliminates spread or release while in operation. Each factory tested, guaranteed for specified capacities. 7 sizes from 4,000 to 35,000 lb. rating, priced $3.00 to $14.80. Continuous action makes them a versatile tool in steel, lumber, machinery hauling, logging, oil fields, rigging. Two sizes made without take-up feature.

POPULAR AMERICAN FORGE *RATCHET* LOAD BINDERS

COMPLETE SAFETY IN TIGHTENING, BINDING, RELEASING LOADS . . . versatile "turnbuckle" principle has wide range of application. One man easily operates without aid of extension pipe; no kick-backs, full 8" take-up. 3 sizes, $14.90 to $18.10. Special size ideal for trueing steel work on building construction.

CANTON CAST PRODUCTS CO.
Maker of Cancap Exhaust Protectors
2405 13TH STREET N. E. • CANTON 5, OHIO

▲ For more details circle **NED-9042** on enclosed inquiry slip ▲

Increase production... cut costs... with this BOSTITCH T5 Tacker

You increase production and cut costs when you use the Bostitch T5 Tacker. Shoots in staples twice as fast as ordinary tacking. Leaves one hand free for better control of work. Easily fastens as close as 1/16" to internal corners. Permits untrained operators to outstrip the fastest worker with old-style hammer and tacks. Safer — no swallowing of tacks, no mouth infection. For complete details write for Bulletin 133, BOSTITCH, 726 Mechanic Street, Westerly, R. I.

BOSTITCH fastens it better AND FASTER with wire

ALL TYPES OF MACHINES FOR APPLYING STAPLES
ALL TYPES OF STAPLES APPLIED BY MACHINES

Trade-mark "Bostitch" Registered U. S. Patent Office and Foreign Countries

▲ For more details circle **NED-9043** on enclosed inquiry slip ▲

Get DRY AIR from your compressor!

WESTINGHOUSE TYPE "W" WATER-COOLED AFTERCOOLER

Easily installed . . . delivers *dry* compressed air for paint spray, laundry equipment, controls, dental laboratories and other applications. Central water-cooled core is high-efficiency spined copper tubing within 2½ O.D. steel tubing with brass header. Water connections at end, air connections at top, drains at bottom of headers. Drain cock or automatic drain valve optional. Three sizes . . . for 1½ and 2 HP, 3 and 5 HP, and 7½ and 10 HP compressors. Write for Bulletin 9460-21 and name of nearest distributor.

INDUSTRIAL PRODUCTS DIVISION — WESTINGHOUSE AIR BRAKE COMPANY WILMERDING PENNA.

Factory Branch: Emeryville, Calif. • Distributors throughout the United States . . . Consult your Classified Directory • Distributed in Canada by: Canadian Westinghouse Co., Ltd., Hamilton, Ontario

▲ For more details circle **NED-9044** on enclosed inquiry slip ▲

You can have privacy and hear well too

In noisy offices a Burgess-Manning Acousti-Booth provides a "zone of quiet". . . you can hear clearly in its hushed interior. A thick blanket of sound-absorbent fabric lining the walls traps the noise. Modern design. Movable. Floor and wall models. Wall model suitable for desk.

Quiet telephoning here

Mail Coupon For Free Booklet

Burgess-Manning Company, *Architectural Products Division*
5970-C Northwest Highway, Chicago 31, Illinois

Please send me your booklet describing Burgess-Manning Acousti-Booths.

Name_____
Firm Name_____
Street_____ City_____ State_____

▲ For more details circle **NED-9045** on enclosed inquiry slip ▲

FOR VENTILATION, FUME AND DUST CONTROL AIR CONDITIONING

Light, Strong, Flexible

FLEXAUST

SPIRAL-REINFORCED HOSE

Flexaust is suitable for a wide variety of suction and pressure uses in ventilation, dust collection and fume control. **SIZES 1¼ inches to 24 inches.** Write for full information on this all-purpose hose. Various Flexaust types, accessories, and other hose types also available:

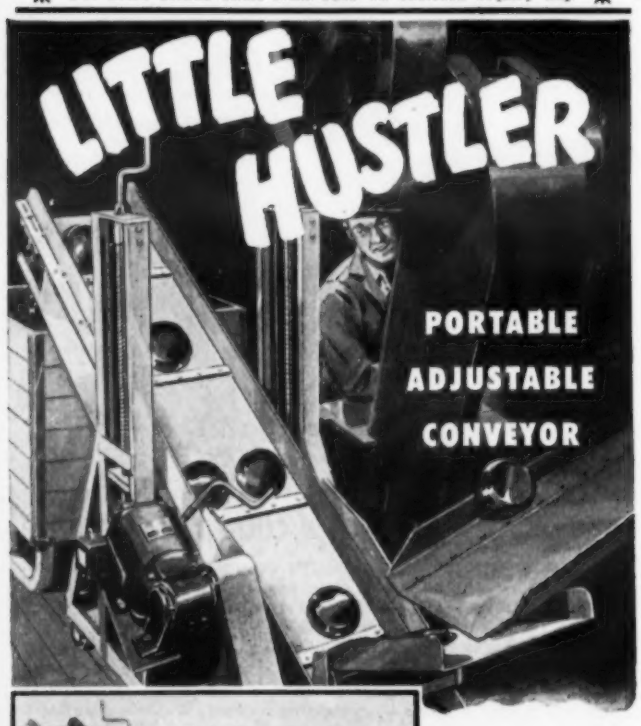
BLOFLEX
Non-reinforced collapsible

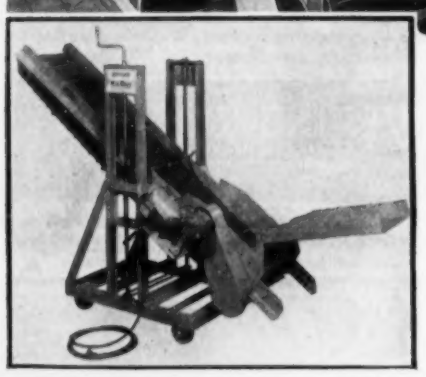
PORTOVENT
Ring-reinforced retractable

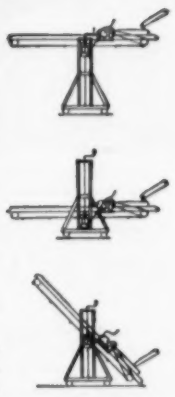
AMERICAN VENTILATING HOSE COMPANY

Dept. N-11, 100 Park Avenue, New York 17, N. Y.

For more details circle **NED-9046** on enclosed inquiry slip







Quickly spotted wherever needed . . . LITTLE HUSTLER conveyor offers an economical means of mechanizing your materials handling operations. Fully portable and instantly adjustable, this versatile unit provides maximum efficiency in applications where working heights and layouts are subject to frequent change.

This conveyor can be adjusted to any angle from horizontal to a maximum of 45° by means of a crank handle, and working height is regulated through a 30-inch range by double-screw center lift. It can handle small and medium sized metal parts including cut-offs, blanks, formed metal stampings, etc.

Features include all-steel welded construction, charging chute with positive trap, and two swivel and two stationary casters. Standard belting is neoprene-impregnated fabric. For applications involving excessive wear, or for the handling of borings, chips and turnings, MAY-FRAN hinged-steel conveyor belting can be furnished.

Power units are supplied to meet requirements.

Belt Widths	Conveyor Lengths in Ft.				
12 inches	4	6	8	10	12
18 inches		6	8	10	12
24 inches		6	8	10	12

255-MF

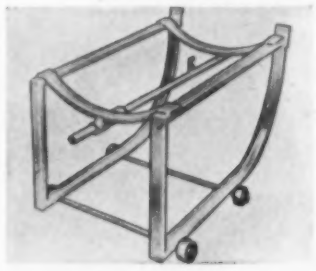
● Write for catalog for complete price and specification information.

MAY-FRAN ENGINEERING, INC.

1711 CLARKSTONE ROAD • CLEVELAND 12, OHIO

For more details circle **NED-9047** on enclosed inquiry slip

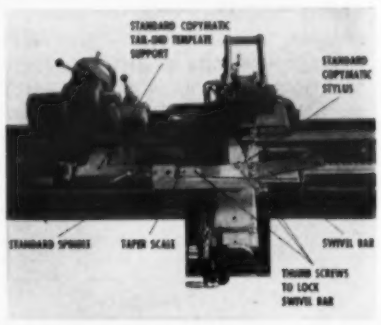
BARREL & DRUM CRADLE
light unit made for heavy loads



Featuring a loading-bar which permits loading of drums with safety, GS steel barrel cradle is light in weight, yet strong enough for heavy loads. It is designed to reduce handling costs and handling time in storing and draining of drums and barrels. Model GS CW-H with wheels costs $19.50. Made by **General Scientific Equipment Co.,** 2701 W. Huntingdon St., Philadelphia 32, Pa.

For more details circle **NED-9048** on enclosed inquiry slip

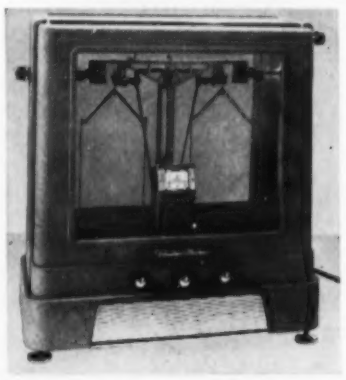
TAPER TURNING ATTACHMENT
lathe device uses flat template



Workpieces which have peripheries or bores of continuous tapers can be contour turned directly by flat template device for Lodge & Shipley Copymatic lathes. Desired taper is set on integral direct-reading scale. When tapers form part of surface, attachment is used to produce round template which is then placed between standard Copymatic duplicating centers for tracer controlled duplication in any quantity. Swivel bar and scale incorporated in flat template taper arrangement can be accurately angled to desired taper. Attachment can be made in field. Made by **Lodge & Shipley Co.,** 3051 Colerain Ave., Cincinnati 25, O.

For more details circle **NED-9049** on enclosed inquiry slip

ANALYTICAL BALANCE
projects weight on screen



Suited for fast repetitive weighing or regular laboratory work, Projectomatic model AB-1 balance is equipped with double pans which makes taring (compensating for container weight) possible. Projection through optical system provides sharp image on easily read screen. Light behind screen is automatically switched on and off as beam is released and arrested. Vernier on screen provides direct readings from 1/10 to 100 mg each side of center zero. Automatic dampers at each end of beam arrest oscillation quickly. Other features include good working access, built-in vibration eliminators and individual pan arrests. Made by **Torsion Balance Co.,** Christian Becker Div., Clifton, N. J.

For more details circle **NED-9050** on enclosed inquiry slip

CUT AIR HOSE COSTS
SPEED UP PRODUCTION
PREVENT ACCIDENTS
SAVE TIME

with CHAMPION

AIR HOSE REELS

Even if you disregard the increased production, the savings in time afforded workers . . . Champion Air Hose Reels still more than pay for themselves in reduced air hose replacement costs and in greater safety. They keep air hose off-the-floor, out-of-the-way, yet always convenient—instantly accessible. They're fully described in the free Champion Catalog!

for ceilings walls and floors

Specify CHAMPION **AIR COMPRESSORS**
. . . for 21 Features that CUT COSTS!

Endurance, performance and economy are the qualities you want in an air compressor. When you compare the materials, workmanship and the sound practical design of the Champion Line—you'll agree that the Champion can't be beat! The free Champion Catalog shows you 21 outstanding EXTRA FEATURES found in every Champion Air Compressor—write for your copy TODAY!

The model OE-40-60 Two Stage Compressor shown is one of the 54 Champion Models available from ¼ to 7½ H.P.

CHAMPION PNEUMATIC MACHINERY CO.
837 NORTH PLEASANT STREET
PRINCETON, ILL.

CHAMPION

5124 NED

For more details circle **NED-9051** on enclosed inquiry slip

FREE PLASTIC ENVELOPE

Factory Experience Proves It Reduces Errors . . . Saves Work Speeds Up Production

Send for this free Kleer-Vu Plastic Envelope today and test it in your own plant. See how production records, job orders, blueprints, charts, graphs, etc., stay clear and clean always. No doubts, no errors, no wasted time because of blurred, grease-covered figures. No "make-overs" on vital war jobs. Work gets done quickly, efficiently. Ideal for much handled office forms, too. You can use Kleer-Vu Plastic Envelopes profitably in every phase of business.

Try this style FREE . . . write today

SPECIAL INTRODUCTORY OFFER!

For a limited time only, 50 KV envelopes, (any style shown here), for $10. You save 33 1/3%. Money back in ten days if not satisfied.

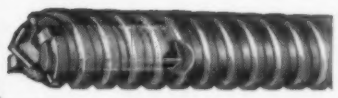
AMERICAN KLEER-VU PLASTICS, INC.

57 Thames St. Brooklyn 6, N. Y.

For more details circle **NED-9052** on enclosed inquiry slip

DRILL ANY SIZE HOLE IN ANY MASONRY MATERIAL
with Carbide Tipped

Cyclo-Core FOR **HARD CONCRETE** using rotary type drill with pressure applied.



Drills holes ¾" dia. and up. Removable Cyclo-Center accessory allows precision locating and starting of hole without use of wooden template.

Cyclo-twist FOR **SOFT and MEDIUM MASONRY MATERIALS** using electric rotary drill, drill press or hand brace.

Drills holes 3/16" to 1" dia. up to 36" deep. Dust removing spiral flutes fun from cutting edges to shank end.

Thunderbolt FOR **HARD or VERY HARD MASONRY MATERIALS** using electric or pneumatic hammer

Drills holes 3/16" to 1¾" dia. up to 18" deep. Carbide tip withstands shock and wear. Taper proportioned to withstand crystallization.

SEND FOR NEW MASONRY DRILL BIT GUIDE —
"Helps you choose the RIGHT bit for EACH job."

***New England Carbide* TOOL CO., INC.**
60 BROOKLINE STREET, CAMBRIDGE 39, MASS.

For more details circle **NED-9053** on enclosed inquiry slip

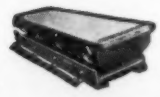
SEND FOR OUR NO. 830

It is a brand new piece of literature covering every phase of our electric vibrating equipment. Your files will not be complete without a copy of this 84-page book.

Jeffrey-Traylor electric vibrating Feeders, Conveyors, Coolers, Dryers, Packers, Screens, Weigh-Feeders perform a multitude of operations . . handle a wide variety of material. If it's control over tonnage handled, we can do it to perfection. Yes, *Instantaneous* and *Absolute Control* over the flow of material.

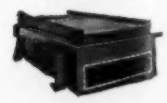
It is possible for the specific requirements of your plant or process to govern the operation of its equipment instead of having the limitations of uncontrolled feeding govern the entire operation. You can rely upon that. May we hear from you?

PACK



COOL

FEED



DRY

WEIGH AND FEED

SCREEN

CONVEY

JEFFREY

ESTABLISHED 1877
THE JEFFREY MANUFACTURING CO.
952 Fourth Street, Columbus 16, Ohio

For more details circle **NED-9054** on enclosed inquiry slip

He's Building a NEW MOTOR CONTROL STATION

to save space, time and trouble

Centralizing the controls for all the motors in an area . . . saves operator's time, saves space, eliminates wall mountings with attendant framework.

Ward Leonard MULTITROL is a complete assembly of individual standardized "blocks", each a complete control for one motor or group. It fits any available space, is completely flexible to allow for future requirements.

Investigate MULTITROL. Write for Bulletin 4410. WARD LEONARD ELECTRIC CO., 51 South St., Mt. Vernon, N.Y. Offices in principal cities of U. S. and Canada.

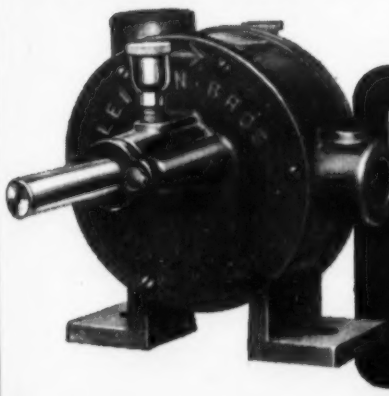
WARD LEONARD ELECTRIC CO.
Result-Engineered Controls Since 1892
RESISTORS · RHEOSTATS · RELAYS · CONTROL DEVICES

For more details circle NED-9055 on enclosed inquiry slip

All these are "LOW PRESSURE" AIR JOBS--

Agitating—blowing—holding—chucking—sorting—cleaning—drying—cooling—separating—mixing—feeding—leak-testing—pressure-boosting—materials transfer, etc.

-handled Better, at Lower Cost, with



LEIMAN AIR PUMPS
(Pressure, Vacuum, Suction)

ON hundreds of air applications requiring pressures lower than 25 p.s.i. or vacuum under 29" mercury, Leiman Rotary Positive Air Pumps are providing these advantages over any other source of air:

- Even, pulseless flow of air.
- No expensive installation, no tanks.
- Air available instantly—no waiting to build up pressure.
- No waste — runs only when air is needed.
- Very compact and portable—plug in and use anywhere.
- Provides both pressure and vacuum-suction from same source, by switching from outlet to inlet.
- Extremely quiet and trouble-free for years.
- Little or no maintenance.

What is your operation or problem? Send us details for recommendation, without obligation.

TAKE UP THEIR OWN WEAR

Exclusive Leiman hinged wing design permits wings to wear uniformly, maintaining full pressure or vacuum, even after 15 and 20 years' steady service.

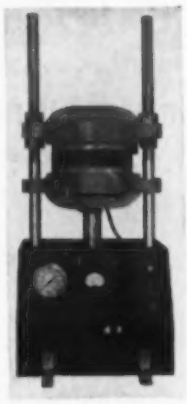
WRITE on firm letterhead for free catalog and application folder.

LEIMAN BROS., Inc. 167 Christie Street, Newark 5, N. J.

AIR PUMPS · AIR MOTORS · SAND BLASTS · DUST COLLECTORS

For more details circle NED-9056 on enclosed inquiry slip

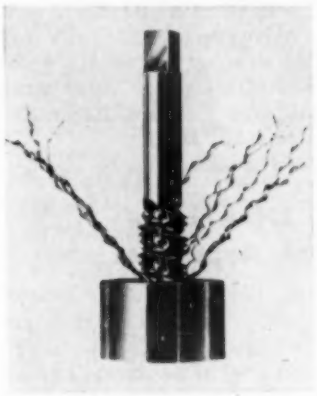
LABORATORY PRESS available force is 60,000 lb



Hydraulic mechanism of No. 30-11 laboratory press provides total available force of 60,000 lb. Gage mounted in control panel indicates pounds per square inch on ram. Stroke is 6 in. and maximum daylight opening is 20 in. Electrically heated circular platens are 11 in. in diameter and width between columns is 14 in. Bimetallic type temperature regulator and delayed load method is used for operation at close temperature differential. Mercurial thermometers can be inserted in platens for more accurate readings. Press is available for 115 or 230-v ac. Made by **Wabash Metal Products Co.,** Dept. NED, 1568 Morris St., Wabash, Ind.

For more details circle NED-9057 on enclosed inquiry slip

TAPPING BROACH cuts left hand threads



True broaching action of Shearcutter thread broach which taps left-hand threaded hole results in low torque and minimized tool breakage. Action of tool removes chip as one continuous piece. Made from high speed steel, broaches are precision ground after hardening. They can be used in tapping machines, automatics, turret lathes and machines adapted for tapping operations, and are interchangeable with standard taps. Tools are available in all popular sizes of both right and left-hand thread cutting types from **Shearcut Tool Co.,** 7045 Darby Ave., Reseda, Calif.

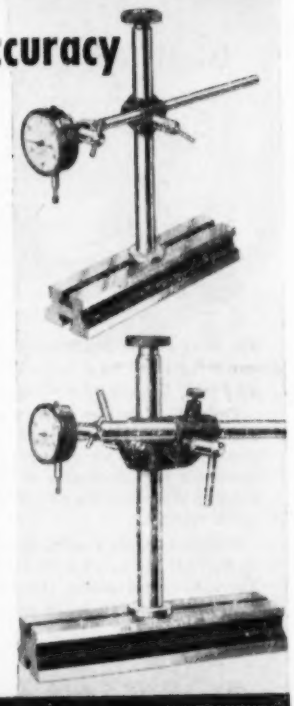
For more details circle NED-9058 on enclosed inquiry slip

REDUCER FITTING joins different tubing sizes

Consisting of body, two ferrules and nut, Swagelok reducer fitting permits joining of different sizes of tubing. Two ferrules plus threaded chuck inside nut clinch tight around tubing wall and provide leakproof seal. Tubing is inserted into reducer and reducer nut is turned 1¼ turns to seal. Fittings are available in brass, aluminum, steel, stainless steel and Monel in sizes ranging from ⅛ to ⅞-in. OD. Heavy or thin wall tubing are held equally well, as is plastic tubing. Made by **Crawford Fitting Co.,** 886 E. 140th St., Cleveland 10, O.

For more details circle NED-9059 on enclosed inquiry slip

DIAL TEST INDICATORS for on-the-job accuracy assurance



With minimum disturbance of work or loss of time, Brown & Sharpe Dial Test Indicators provide quick, easy accuracy checks for flatness, concentricity, run-out, or innumerable other relationships. Especially valuable to set-up men, machine operators, inspectors, or toolmakers.

The carefully machined parts of these quality tools assure smooth, solid movement, and precise clamping. Dial face may be turned to bring zero under hand in any position. Wide variety of styles. Write for catalog. Brown & Sharpe Mfg. Co., Providence 1, R. I., U. S. A.

WE URGE BUYING THROUGH THE DISTRIBUTOR

BROWN & SHARPE BS

For more details circle NED-9060 on enclosed inquiry slip

Cost-Conscious Designers Choose Cherry-Channer SWITCHES

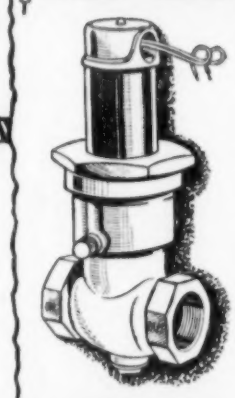
For
- ECONOMY
- RELIABILITY
- POSITIVE SNAP-ACTION
- SIMPLIFIED COIL-SPRING CONSTRUCTION
- CAM-FOLLOWING ACTUATORS

Dependable Cherry-Channer Switches effect important savings in many products. Their time-proven *coil-spring* construction permits a wide range of actuating pressures simply by specifying a spring of desired characteristics for each job. Precision built. Individually tested. Our engineers will help you with application problems. For details write Dept. 11-NED.

Cherry-Channer Corporation
1488 SKOKIE BOULEVARD
HIGHLAND PARK, ILLINOIS

For more details circle NED-9061 on enclosed inquiry slip

ATKOMATIC ELECTRICALLY OPERATED VALVES



ATKOMATIC Valves can TAKE it! EXTRA rugged to withstand more hard use than you'll ever demand of them. Sturdy, compact, built for any pressures up to 3,000 pounds. In thousands of installations, they are delivering dependable, trouble-free service.

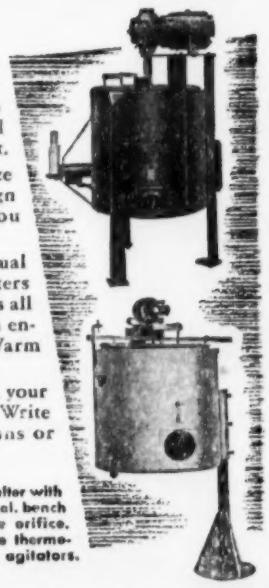
Wide variety of types usable for any medium not harmful to bronze. Perhaps we have already worked out YOUR valve problems . . . why not present them to us without obligation? In your plant or on YOUR product, you can always depend on ATKOMATIC.

Send for Literature

ATKOMATIC VALVE CO.
545 W. ABBOTT ST., INDIANAPOLIS, INDIANA

For more details circle NED-9062 on enclosed inquiry slip

SPEED UP COMPOUND MELTING with STA-WARM HEATING TANKS



● Name your compound melting requirement! Sta-Warm will suggest *exactly* the tank or pot in their wide and varied line to produce the heated compound you need at the rate you need it.

Or, their engineers will analyze your special problem and design the unit to do your job as you want it done.

Heating and dispensing unusual compounds and tailoring melters to unusual production set-ups is all in the day's work for Sta-Warm engineers. Put specialized Sta-Warm "know-how" to work for you.

The *right* equipment can break your compound melting bottleneck. Write for Sta-Warm recommendations or bulletins today.

Shown at right (above) is 25 gal. melter with molasses gate valve. Below it is 5 gal. bench type dispenser with needle valve orifice. Both models equipped with variable thermostat controls and power driven agitators.

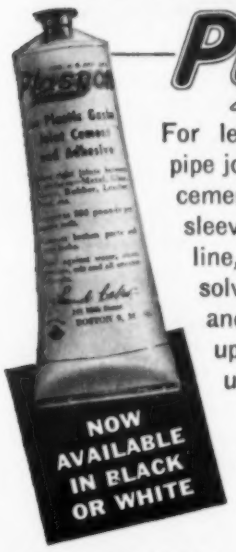
Sta-Warm ELECTRIC CO.
130 N. CHESTNUT ST., RAVENNA, OHIO

For more details circle NED-9063 on enclosed inquiry slip

STOP

LEAKS...WITH

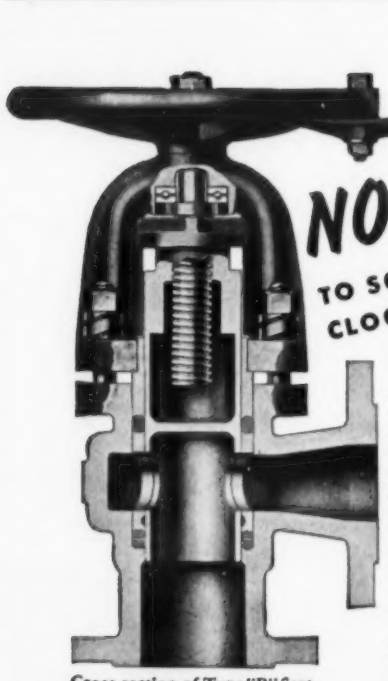
Plasgon



For leakproof, permanently sealed pipe joints, try Plasgon. It's the ideal cement for threaded, flanged or sleeve joints. Impervious to gasoline, fuel oil, steam, all common solvents. Resists heat up to 350° F. and considerable pressure. Sets up firmly . . . remains flexible . . . unaffected by shock or jarring.

LET US SEND YOU A LARGE FREE SAMPLE TUBE. Simply write SAMUEL CABOT, INC., 1132 Oliver Bldg., Boston 9, Mass.

For more details circle NED-9064 on enclosed inquiry slip



NO SEAT!

TO SCORE...WEAR... CLOG...AND LEAK

The Yarway Seatless Blow-Off Valves eliminate the commonest source of trouble and expense with ordinary blow-off valve operations.

The famous seatless principle first introduced nearly 40 years ago, has been constantly improved and adapted to meet modern service requirements.

There is a Yarway Blow-Off Valve for every pressure.

SEND FOR FREE BLOW-OFF VALVE BOOKLET. PLEASE STATE YOUR BOILER PRESSURES.

Cross section of Type "B" Seatless Angle Valve, Flanged.

YARNALL-WARING COMPANY
131 Mermaid Ave., Phila.18, Pa.

YARWAY BLOW-OFF VALVES

For more details circle NED-9065 on enclosed inquiry slip

Improved EC&M LINE-ARC CONTACTORS

Encourage Maintenance

FRONT AND REAR CONTACTS REPLACEABLE IN LESS THAN 2 MINUTES

The LINE-ARC principle gives long contact-life, but when necessary, contacts are easily accessible for quick renewal—no other parts need be removed first. And a standard wrench permits good leverage for loosening and tightening operations. *It pays to encourage maintenance.*

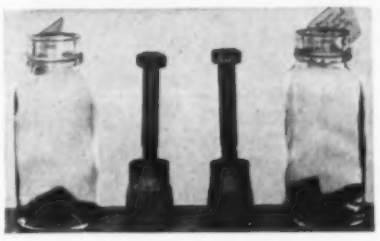
WRITE FOR BULLETIN 1145

THE ELECTRIC CONTROLLER & MFG. CO.
2698 EAST 79TH STREET • CLEVELAND 4, OHIO

For more details circle NED-9066 on enclosed inquiry slip

New Processes and Materials

RUST INHIBITING PAPER offered in variety of forms



Volatile corrosion inhibiting chemical vaporizes from VPI wrapping paper to form invisible protective film around ferrous articles and thereby prevent rust and corrosion. Paper, made under license granted by Shell Development Co., is offered in form of wrapping paper, bags, tubing, liners, separators, covers, envelopes and other protective devices. Vapor, not paper, does the job and it is not necessary that paper be in direct contact or have tight seal around metal surface. There is no coating to remove. Paper is harmless to handle and safe to store. Continued effectiveness is not destroyed by temporary exposure to air. Only materials which release acid may adversely affect its vapor activity. Storage is in waxed Kraft paper outer wrap in which it is delivered. Made by **Orchard Paper Co.**, 5240 Margaretta Ave., St. Louis 15, Mo.

For more details circle NED-9067 on enclosed inquiry slip

ACETATE PLASTICS COATING withstands Scotch tape test

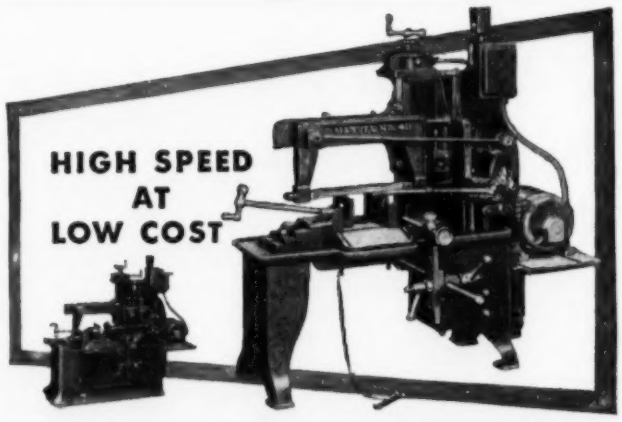
Hardness, flexibility, adhesion, resistance to embrittlement and rapid drying are qualities embodied in Logoquant series A coating for acetate plastics. It can be sprayed on under any weather conditions including 100 per cent humidity and withstands Scotch tape as well as severe abrasion tests. Dulling of surface gloss or loss of adhesion due to presence of water can be overcome with coating. It is available in full line of bright metallic and pigmented colors, and samples will be sent upon request. Made by **Bee Chemical Co.**, Dept. 2, 13799 South Ave. "O", Chicago 33, Ill.

For more details circle NED-9068 on enclosed inquiry slip

PLIABLE INSULATION COMPOUND seals connections against corrosion

Corrosion and oxidation at electrical connections can be sealed out with Airseal, a pliable chemically-inert compound which is applied by kneading and squeezing it over the connector. Material has 280-v-per-mil dielectric strength and provides insulation strength of 35,000 v for an application ⅛ in. thick. It will not deteriorate or harden with age and can easily be removed and replaced over and over with no loss in original sealing efficiency. High plasticity allows compound to be shaped in any fashion to cover a terminal or connection. Made by **James R. Kearney Corp.**, Dept. A, 4236 Clayton Ave., St. Louis 10, Mo.

For more details circle NED-9069 on enclosed inquiry slip



For tool room, stockroom, or maintenance shop, this 6"x 6" capacity hack saw is ideal when you want speed, accuracy, and economical operation at lowest possible investment.

Embodies similar design principles and features of MARVEL heavier duty production saws. Its shaper-link action that provides quick return stroke, and its heavy pressure screw feed are two exclusive MARVEL features that provide FASTER cutting than can be obtained with any other metal saw in its price class.

Single speed, 2-speed, and 4-speed models are available, to suit all types of applications where materials of different hardness and alloy characteristics are to be cut. Cabinet base or open-leg base are optional.

MARVEL Metal Cutting SAWS
Better Machines-Better Blades

ARMSTRONG-BLUM MFG. CO.
"The Hack Saw People"
5700 Bloomingdale Ave, Chicago 39, U.S.A.

For more details circle NED-9070 on enclosed inquiry slip

"The mop detail dotes on this floor,
It drains so fast with ease.
And dirt can't stick on Multigrip
So sweeping up's a breeze!"

UNITED STATES STEEL COMPANY, PITTSBURGH
COLUMBIA STEEL COMPANY, SAN FRANCISCO
TENNESSEE COAL, IRON & RAILROAD COMPANY, FAIRFIELD, ALA.
UNITED STATES STEEL EXPORT COMPANY, NEW YORK
UNITED STATES STEEL SUPPLY COMPANY,
Warehouse Distributors, Coast-to-Coast

U·S·S MULTIGRIP FLOOR PLATE 1-1146

UNITED STATES STEEL

For more details circle NED-9071 on enclosed inquiry slip

now with 12 position indexing

12 position indexing now makes possible the alignment with work at any thirty degree increment.

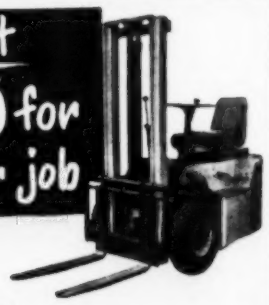
This is only one of the outstanding features developed by the first and largest manufacturer of turrets for small lathes. Other features include built-in cut-off tool and holder and positive rapid indexing. All wearing parts are hardened and precision fit. They are available in three sizes.

Switch to Crozier Tool Post Turrets today. Save as much as 75% set-up and down time in lathe operations. In Crozier, you have America's precision-built tool post turret. Write for catalog.

CROZIER MACHINE TOOL CO. Dept. NED 11
Hawthorne, California

For more details circle NED-9072 on enclosed inquiry slip

Buy the right HYSTER® 20 for your particular job



6 variations of one basic model

1) **2000 lbs.** capacity at 15" load centers (Standard Hyster 20)
2) **2000 lbs.** capacity at 24" load centers (Optional additional counterweight added to Standard 20)
3) **1300 lbs.** capacity at 15" load centers (Skeleton counterweight)
4) **1000 lbs.** capacity at 24" load centers (Skeleton counterweight)
5) **2000 lbs.** capacity at 15" load centers (Skeleton counterweight plus optional additional counterweight)
6) **1500 lbs.** capacity at 24" load centers (Skeleton counterweight plus optional additional counterweight)

Additional optional counterweights can be installed in less than 30 minutes; removed in much less time. See your Hyster dealer for further information.

Why carry around extra weight?

The lightweight but heavy duty Hyster 20 (No. 3 and 4 left) with skeleton counterweight weighs 600 lbs. less than the standard Model 20 (No. 1 left). It will cut maintenance and operating costs when loads are in the 1000 lb. range; and is of great importance where floor load limits exist; where elevator lifting capacities are materials handling factors.

HYSTER COMPANY

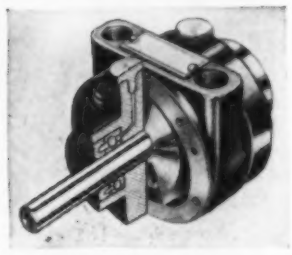
THREE FACTORIES
2906 N. E. Clackamas St., Portland 8, Oregon
1806 North Adams Street.... Peoria 1, Illinois
1010-06 Meyers Street..... Danville, Illinois

For more details circle NED-9073 on enclosed inquiry slip

NEW! PNEUMATIC HOIST with ROTARY AIR MOTOR

Capacities 250 lbs. to 1 Ton
Fast Lifting Speeds

- Worm Geared
- Compact—Light Weight
- Exceptionally Smooth Running
- Close, Sensitive Control



PT Hoist with monorail trolley; also made with upper suspension hook.

Pulseless, rotary air motor; no pistons, no reciprocating parts.

Write for PT Bulletin 708

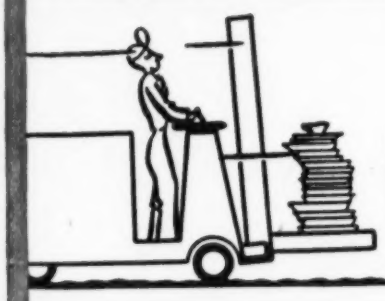
DETROIT HOIST & MACHINE CO.
8269 Morrow St., Detroit 11, Mich.

For more details circle NED-9074 on enclosed inquiry slip

***Mono-Cushions* cut the cost of bumps**

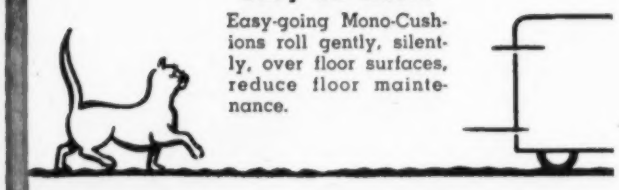
easy on loads
Mono-Cushions smooth out bumps, lend stability, reduce load breakage and spillage.

easy on drivers
Mono-Cushions steer easily, ride easily, handle beautifully, greatly reducing driver fatigue.



easy on vehicles
Mono-Cushions fairly soak up shock and shock load, reduce maintenance as much as 40%

easy on floors
Easy-going Mono-Cushions roll gently, silently, over floor surfaces, reduce floor maintenance.



The manufacturer of your equipment can supply you, through his distributors, with Monarch Tires engineered for your equipment.

THE MONARCH RUBBER COMPANY
200 LINCOLN PARK • HARTVILLE, OHIO

SPECIALISTS IN INDUSTRIAL SOLID TIRES AND MOLDED MECHANICAL RUBBER GOODS

For more details circle NED-9075 on enclosed inquiry slip

New Processes & Materials

PROTECTIVE SHIPPING SLEEVES made of single lined corrugation

Available in tubed rolls of 250 lineal feet or cut to specified lengths, Shelltube rectangular shaped sleeves are offered in 35, 55, 70 and 100-lb stock weights. It is single lined tube, scored for rectangular shaping and gum taped at seam. Minimum tube size is 3 in., but maximum is practically unlimited. Kept in stock are 5¾, 8¾, 11½ and 14½ in. sizes. Made by **Shelton Mfg. Co.**, 591A Ferry St., Newark 5, N. J.

For more details circle NED-9076 on enclosed inquiry slip

FABRIC PRESERVATIVE imparts light color but no odor

Fabrics used for tents, tarpalins and other goods subject to outdoor exposure and subsequent attack by microorganisms can be protected with Copper 3-Phenyl-salicylate preservative. Compound is applied by standard two-bath process, from an aqueous dispersion or from solution in organic solvents. It imparts light tan color and virtually no odor to treated fabrics. Nonirritating to human skin and nontoxic to plant life, chemical is safe for treating fabrics which come in direct contact with skin or with vegetation. It has been approved by Office of Quartermaster General for use as alternate in specification JAN-D-504. Made by **Dow Chemical Co.**, Jefferson Ave., Midland, Mich.

For more details circle NED-9077 on enclosed inquiry slip

ALUMINUM PAINTS available in three types

Produced in accordance with Aluminum Co. of America specifications and bearing Alcoa trademark, line of Perma-Krome aluminum paint is made in three types:

aluminum metal & masonry paint for metal and other hard surfaces; aluminum house paint for weather-exposed wood; and aluminum enamel for interior decoration and heated surfaces. The metal and masonry paint combines 325-mesh aluminum pigment with a high solids, waterproof varnish, while the house paint combines pigment with an oil-rich vehicle. The enamel, which can be used on hot surfaces of 600 to 800° F, consists of 400-mesh aluminum pigment combined with quick-drying, heat resistant enamel. Made by **T. H. Greenwood Co.**, P. O. Box 196, North Hills, Pa.

For more details circle NED-9078 on enclosed inquiry slip

MAUREY FHP V-DRIVES
Your Best Buy Three Ways

FOR SERVICE...
Fast Maurey delivery keeps up with your production line—prevents delay, speeds output.

FOR SAVINGS...
You pay no more for the extra quality and service Maurey gives. You *save* on the better performance and longer service that Maurey quality assures.

FOR COMPLETENESS...
Complete stocks of MOR-GRIP V-belts meet all FHP needs. 1736 stock sizes of Hi-Q V-Pulleys for any FHP speed ratio or standard shaft. In addition, Maurey builds special V-Drives to meet special requirements.

Write for these FREE Maurey Bulletins:
Bulletin FHP 101 informs about MOR-GRIP V-BELTS
Bulletin OEM 2000 informs about Hi-Q V-PULLEYS

MAUREY MANUFACTURING CORP.
World's Largest Manufacturer of Pressed Steel and Cast Iron Single Groove V-Pulleys
2910 S. Wabash Avenue • Chicago 16, Illinois

For more details circle NED-9079 on enclosed inquiry slip

No other drill like it!

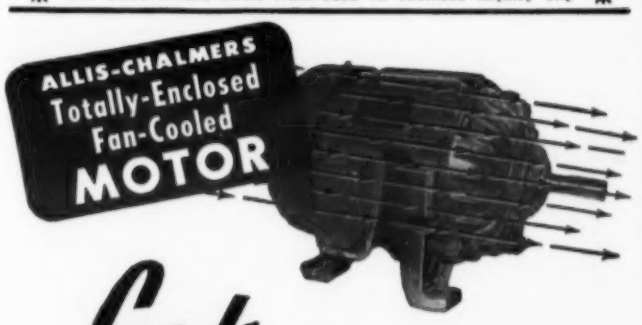
CARBOLOY "LIVE-SPIRAL" Masonry Drill

Tipped with Carboloy Cemented Carbide for phenomenal wear! Lifts dust—no packing or stalling, drills continuously. In handy kits or packed singly. A leader in sales and performance! Write for bulletin MD-125B.

"Carboloy" and "Live-Spiral" are trademarks of Carboloy Department of General Electric Company

CARBOLOY
DEPARTMENT OF GENERAL ELECTRIC COMPANY
11189 E. 8 Mile Road, Detroit 32, Michigan

For more details circle NED-9080 on enclosed inquiry slip



Get the Motor that Cleans Itself

MOTOR CLEANING operations are reduced . . . maintenance costs are lower than ever before with the new Allis-Chalmers tefc motor. Here's why! Concealed air passages have been eliminated; dirt cannot build up to cause overheating. Cooling air is blown over the ribbed cast iron frame and bearing housings — carrying dirt away with it. Oily dirt that sticks can be wiped or blown off.

This new motor built in all NEMA standard frame sizes from 224 to 505. Also in explosion-proof type. Get Bulletin 51B6144 from your A-C Authorized Distributor or District Office, or write Allis-Chalmers, Milwaukee 1, Wisconsin. A-3463

ALLIS-CHALMERS

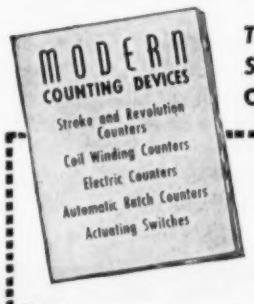
For more details circle NED-9081 on enclosed inquiry slip

The KING of STROKE and REVOLUTION COUNTERS

Used by the thousands in Auto and Aircraft Factories, Metal Working, Die Casting, Plastic Molding and Stamping Plants.

BETTER beyond comparison
say thousands of users

Rugged as an army tank, yet operate smooth as a watch.
Precision built of life-tested Materials.
Tamperproof Reset.
Streamlined—All steel housing.
Complete range of models.



PRODUCTION INSTRUMENT CO.
700-12 W. Jackson Blvd., Chicago 6, Ill.
Please send Catalog of Silver King Counters and Brief Catalog MODERN Counting Devices.

Company_____
Name_____ Title_____
Street_____ City_____ Zone____ State_____
SK-11

For more details circle NED-9082 on enclosed inquiry slip

YOU CAN TAKE IT WITH YOU!

BECKER
Self-Contained
SPRAY GUN
PRESSURE-POWERED
with
INEXPENSIVE
CO_2
CARTRIDGE

This *completely* portable spray gun is saving money in many industrial uses. Excellent for maintenance operations. Requires no compressor, motor, or electrical outlet. Has 21 liquid ounce capacity, heavy-gauge, steel container; cast aluminum head; brass and stainless steel inserts. Low cost CO_2 cartridge sprays up to one container full, depending on viscosity. Use it for paint, varnish, enamel, oil, fire-proofing, rust-proofing, disinfecting. If your industrial distributor can't supply you, order direct and we will ship postpaid. (Extra CO_2 cartridges 10 for $1, postpaid, or buy them from your local dealer.)

ONLY $15.95 *with three cartridges*

SULLIVAN BECKER CO., DEPT. 171-L Kenosha, Wis.

For more details circle NED-9083 on enclosed inquiry slip

Check Temperatures
Instantly... Accurately with *Alnor* TYPE 1500
PORTABLE PYROMETER

Wherever temperature readings are required—on the production line, in the laboratory or in the field—this sturdy precision instrument can bring you instant, accurate results.

Here's Why

It's Fast . . . in operation and quickly read. Precision movement designed to laboratory standards. Direct reading scale face is easily understood—no slide wires or conversion tables necessary.

It's Accurate . . . consistently to within ¾ of one percent under almost all variable conditions. Sturdy, protective case assures continued accuracy in toughest portable service. Ten scale ranges available, from 0-400° to 0-3000°F. Equivalent Centigrade scales available at no extra cost.

It's Portable . . . compact size, 6½"x6"x3", and light weight make this pyrometer highly portable and easy to use anywhere. Write today for complete details and prices. Illinois Testing Laboratories, Inc., Room 529, 420 N. La Salle Street, Chicago 10, Illinois.

Send for Bulletin on 1500 Pyrometer.

Alnor PRECISION INSTRUMENTS FOR EVERY INDUSTRY

For more details circle NED-9084 on enclosed inquiry slip

This Spencer Portable Vacuum Cleaner has 30 times the cleaning power of an ordinary home type machine. The dirt can holds 7½ cubic feet of rubbish—and is removed by a foot lever and rolled on casters to the point of disposal. It's built for big business and uses standard Spencer Vacuum tools.

This is the type used by plants having up to 500 acres of floor space to clean every night or tons of metal to pick up and reclaim or bulky raw products to convey. Portable sizes from 1½ to 15 HP. Stationary units to 100 HP. Ask for Bulletin No. 125-D.

THE SPENCER TURBINE COMPANY • HARTFORD 6, CONNECTICUT
SPENCER HARTFORD
439-D

For more details circle NED-9085 on enclosed inquiry slip

New Processes & Materials

BRIGHT ZINC PROCESS
developed for still tank plating

Economical method of producing bright to brilliant zinc deposits directly from plating bath is provided by bright zinc process BSZ-300. Bright dipping is not essential. Parts plated by process appear bright, stay bright and have high resistance to oxidation and tarnish. Still tank plating process requires no special equipment, brightness being based on use of brightener as additive to regular cyanide solution. Use can be over broad range of current densities. It requires a low concentration in plating bath, and it readily accepts conversion coatings and can be soldered with comparative ease. Developed by **Hanson-Van Winkle-Munning Co.**, W. Church St., Matawan, N. J.

For more details circle NED-9086 on enclosed inquiry slip

WET CONCRETE SEALER
chemical stops fast-flowing leaks

Liquid chemical called Flextite, when mixed with cement or cement and sand, speeds up action in sealing off leaks and water seepage in concrete walls. It produces a mortar that is easily handled and fast setting, making it effective against hydrostatic pressure. Material is usable for plaster-coating walls above or below ground or water level, for pointing up spalled areas and for converting wet or damp basements into useful space. Made by **Flexrock Co.**, 3603 Filbert St., Philadelphia 4, Pa.

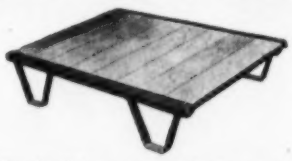
For more details circle NED-9087 on enclosed inquiry slip

RUSTPROOF CHEMICAL TREATMENT
provides oil-retaining surface

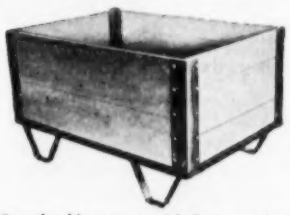
Rustshield 2 phosphatizing compound changes iron and steel surfaces into rustproof and highly absorbent nonmetallic areas. Increased surface area retains lubricating oils, giving added protection to moving parts. Surface coating is produced from chemical interaction of phosphate solution and metal surface. Compound is applicable to rubbing and sliding surfaces of precision parts such as pump pistons, gears, valve roller pins and all types of bearings. Close tolerances are not affected by treatment. Compound meets requirements for phosphate coatings in Army Ordnance Specification 57-0-2C, type II, class A. Process consists of precleaning with vapor degreaser, safety solvent or alkali cleaner designed for purpose; rinsing; Rustshielding; rinsing and final treatment with passivating agent. Application is by hot immersion. Developed by **Octagon Process, Inc.**, 20 Bank St., Staten Island 1, N. Y.

For more details circle NED-9088 on enclosed inquiry slip

In production or in storage
IRONBOUND EQUIPMENT HANDLES SMALL PARTS MORE EFFICIENTLY



Standard 2-way entry bolted type skid built to handle loads up to 5 tons.



Standard box top welded to standard skid. Available too, with removable boxes. Handles many items in production and storage.

Flexible arrangement of boxes and skids permits tiering and stacking to meet your individual requirements. Provides quick availability, easy handling, or storage for complete units or parts.

Each of the units illustrated has an important use in modern industry. Ironbound skid platforms and box tops are prime sources of increased plant capacity so vitally needed today. Our representative can help you to increase your output and plant space. Catalog GP-7 may help you, too!

Ironbound

IRONBOUND
BOX & LUMBER COMPANY
Materials Handling Division
55 HOFFMAN PLACE • HILLSIDE, N. J.

MANUFACTURERS OF QUALITY BUILT SKIDS, SEMI-LIVE SKIDS, FLOOR TRUCKS, ROLL TRUCKS, DOLLIES AND PRY BARS

For more details circle NED-9089 on enclosed inquiry slip

WHITNEY ROLLER CHAIN *Flexible Couplings*

FOR YOUR DIRECT POWER DRIVE APPLICATIONS

Whitney Roller Chain Flexible Couplings offer the equipment manufacturer and machine user a practical and efficient unit for connecting power equipment to direct drives. All steel construction . . . precision roller chain and hardened cut tooth sprockets provide positive operation . . . assure long life.

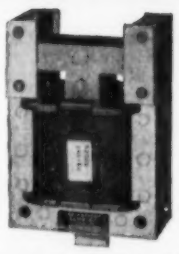
Check these Whitney Flexible Coupling features, easily installed, allows for motor end float, disconnects without removing shafts or bearings, allows for slight shaft misalignment.

You can use Whitney Flexible Couplings wherever a positive yet flexible direct drive is required. Write for information.

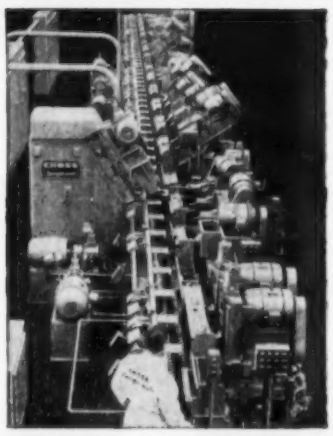
WHITNEY CHAIN COMPANY
203 Hamilton Street Hartford 2, Conn.

For more details circle NED-9090 on enclosed inquiry slip

Where PRECISION Control Counts THE CROSS CO. PICKS NAMCO SOLENOIDS



Namco "Stellite"-Welded Solenoid No. 16K200, one-inch-stroke, 17 lb.-push type, as used on 54-station Cross Transfer-matic (illustrated at right) performing 104 automatic operations to drill, mill and tap automotive automatic transmission cases.



Multiple-operation automatic machining always places a premium on precision. Imagine what would happen, for example, if just *one* of the 104 operations performed at the 54 stations of this Cross Transfer-matic fell down due to faulty controls! At twenty-three of the stations this machine performs drilling, reaming and counterboring operations automatically—*and drill depth must be held to .0015!*

That's where high-speed action and precision operation—both basic characteristics of every Namco "Stellite"-Welded Solenoid—really count. Cross uses our No. 16K200, one-inch-stroke, 17 lb.-push-type model—but Namco Solenoids are available in a wide variety of capacities and standard mountings, either push or pull type (up to 25 pounds) to meet almost every industrial application.

Our engineers will be glad to help you select the right size and type, either standard or modified mounting, to fit your exact requirements. May we help you design these Namco *Precision* Solenoids into your product?

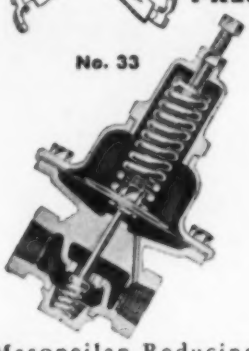
The complete standard range of Namco "Stellite"-Welded Solenoids is illustrated and tabulated in Engineering Bulletin EM-46A. Ask for your copy.

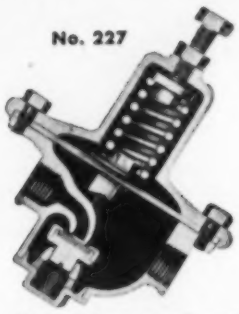
ELECTRICAL MANUFACTURING DIVISION

THE NATIONAL ACME CO.
CLEVELAND, OHIO
182 EAST 131st STREET • CLEVELAND 8, OHIO

For more details circle NED-9091 on enclosed inquiry slip

Stop Losing Money
in Pressure Reducing
USE
MASONEILAN
PRESSURE REGULATORS





Masoneilan Reducing valves make a hit with production and maintenance men in all types of industries because they furnish economical pressure control. Their dependable operation, low maintenance cost and minimum time-out-of-service saves money through accurate control and reduced waste.

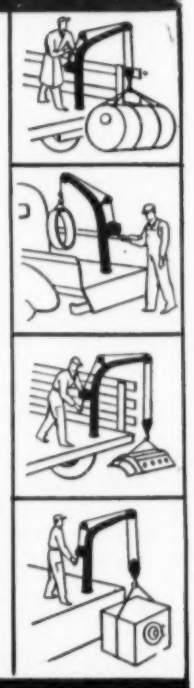
No. 33 for steam and air service — Sizes from 1/8" to 3/4". Reduced pressure ranges 2-20; 20-40; 40-100 psi. Maximum working pressure 200 lbs.

No. 227 for water service — Sizes 1/4" to 2". Reduced pressure ranges 10 to 60 psi. Maximum working pressure 150 psi. Also available for air service from 1/4" to 1".

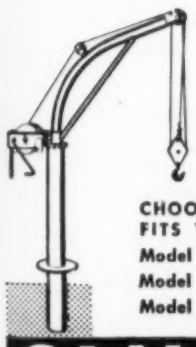
MASON-NEILAN REGULATOR COMPANY
MASONEILAN
1189 ADAMS STREET
BOSTON 24, MASS., U. S. A.

For more details circle NED-9092 on enclosed inquiry slip

BLUE HERON
TRUCK CRANE SAVES..
TIME • MONEY • LABOR



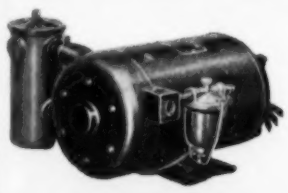
ONE MAN can handle up to ONE TON easily with BLUE HERON TRUCK CRANE—and with greater safety! Crane swivels through full circle and can be lifted from socket by one man—leaving truck body clear. Many operators equip all trucks with sockets, change cranes from truck to truck as needed. Simple to install!



CHOOSE THE MODEL WHICH FITS YOUR REQUIREMENTS
Model O.C.30A Cap. 500 lbs.
Model O.C. 30B Cap. 1000 lbs.
Model O.C.30C Cap. 2000 lbs.

CAM TOOL COMPANY, INC.
288 22nd STREET • OAKLAND 12, CALIF.

For more details circle NED-9093 on enclosed inquiry slip



Rotary Type
•
VISIBLE LUBRICATION
•
No "Discharge Oil"
•
MADE IN FOUR SIZES
•
for
VACUUM & PRESSURE

MOTOAIR* PUMP

Hardly larger than an electric motor of a given size, the MOTOAIR pump has *automatic lubrication;* no valves to turn on or off. Built integrally with its motor, it has less parts to wear, and the rotor blades compensate for *their* wear.

Compact • NO BELTS • NO GEARS • NO EXTENDED DRIVES

Motoair Pumps can be supplied for ceiling, wall or normal mounting without impairing operation. Widely used in many industries, especially in packaging machinery, paper handling, vacuum frames, etc.

BUILT-IN EXHAUST AIR FILTER

Ask for Catalog Details!
*Reg. U. S. Pat. Off.

NEW JERSEY MACHINE CORPORATION
1530 Willow Ave. • Hoboken, N. J.
Factory offices in Chicago, Cincinnati, Los Angeles

For more details circle NED-9094 on enclosed inquiry slip

New Processes & Materials

SPRAYED MASKING PLASTIC
plating masks usable many times

Masking portions of metal articles to be plated is facilitated with nonporous chemically inert coating of polyethylene, flame-sprayed onto section to be masked. Coating is applied 1/16 to 3/32-in. thick. To allow initial removal of stop-off mask for reapplication to subsequent parts, section to be masked is covered with thin coating of special mold release agent prior to spraying. Elasticity of stop-offs permit easy snapping on and off for re-use. Flame-Spray equipment for making stop-offs is offered, as well as masks made to customer's specifications, by **American Agile Corp.**, Plastics Div., Dept. E, 5806 Hough Ave., Cleveland 3, O.

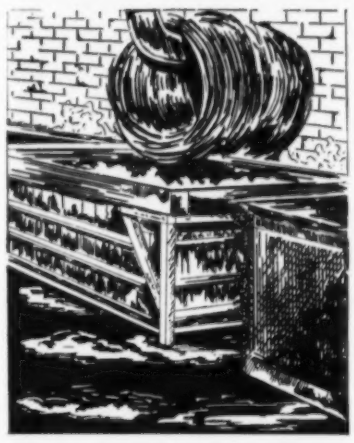
For more details circle NED-9095 on enclosed inquiry slip

FLUORESCENT CHALK
available in six colors

Compounded to correct writing consistency, Blacklight fluorescent chalk is available in blue-white, green, yellow, red, blue and orange-red colors which glow when activated by Blacklight. Chalk is useful for graphically portraying sketches, maps, displays or medical presentations on any blackboard or hard surface material that will take chalk. It is easily erased with board eraser or cloth. In briefing rooms where light levels are low, chalks give maximum visibility without affecting adaptation of eyes to darkness. Made by **Norco Products Mfg. Co.**, Dept. BLC, 392 Bleecker St., New York 14, N. Y.

For more details circle NED-9096 on enclosed inquiry slip

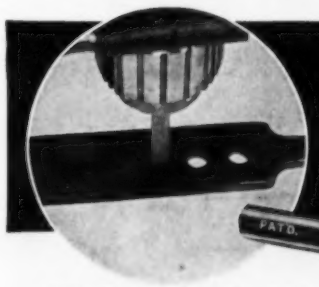
PROTECTIVE COATING
can be used from —56 to 200° F



Coal tar pitch compound Tarlac is fast drying protective coating combined molecularly with water and stabilizing emulsification agent and can be brushed or sprayed. Practical as coating for concrete, masonry, metals exposed to corrosion, mastics and wood surfaces, compound will not crack at temperatures down to —56° or run at temperatures up to 200° F. It dries to tough flat black film and remains impervious to oils, greases, petroleum derivatives, acids, alkalies, water and condensation. Coating comes in 5-gal pails and will cover up to 300 sq ft per gallon. Made by **Flash-Stone Co.**, 30 E. Rittenhouse St., Philadelphia 44, Pa.

For more details circle NED-9097 on enclosed inquiry slip

Drill Hardened Steels
without Annealing—



USE
The New
IMPROVED
"HARDSTEEL"
DRILL

With the new, improved "HARDSTEEL" Drill, you can do accurate, smooth drilling, countersinking, counterboring and reaming in steels hardened by any process without first annealing the work. And they work with equal ease on work-hardening steels and high carbon—high chrome steels of any degree of hardness.

"HARDSTEEL" Drills fit standard drill presses. They save time and reduce rejects. They permit engineering changes requiring additional drilling after hardening. And parts drilled after hardening always match at assembly.

Write for a copy of the "HARDSTEEL" Operators Manual showing how "HARDSTEEL" drills are cutting costs in thousands of plants.

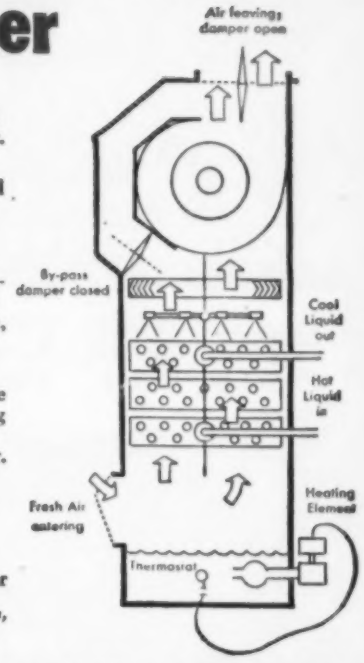
You Harden It—We'll Drill It—
With "HARDSTEEL"

BLACK DRILL COMPANY
Division Black Industries
1380 East 222nd St. • Cleveland 17, Ohio

Also makers of—
BLACK DRILLING UNITS—AUTOMATIC, SELF-CONTAINED—FOR COST-CUTTING PRODUCTION ON ALL MATERIALS
Write for information

For more details circle NED-9098 on enclosed inquiry slip

NIAGARA Aero Heat Exchanger



1. Extends quenching capacity without extra water or cooling tower.
2. Quickly pulls down heat at initial peak load of Quenching.
3. "Balanced Wet Bulb" Control holds quench bath at proper temperature, heating if needed to start after shut-down, and cools or heats by automatic control.
4. Saves cleaning expense as compared to cooling tower which picks up acids and fumes from air.

APPLICATIONS
Quench Oils
Cutting Oils
Lubricating Oils
Cooling Water

For help in increasing production, saving of cooling water, write for Bulletin No. 120. Address

NIAGARA BLOWER COMPANY
Over 35 Years of Service in Industrial Air Engineering
Dept. ED, 405 Lexington Ave. New York 17, N. Y.
Experienced District Engineers in all Principal Cities

For more details circle NED-9099 on enclosed inquiry slip

GRINDS BROAD AREAS FLATTER AND FASTER!

USER REPORTS PRODUCTION OF 400 TO 1500 PIECES AN HOUR!

PORTER-CABLE
ABRASIVE-BELT MACHINING

Manufacturer who sent in picture above states: "Equipment shown is in daily use on any number of jobs that require flat face grinding. We find this machine handles such work much better than a radial surface grinder inasmuch as the working belt surface stays flatter and produces a flatter job.

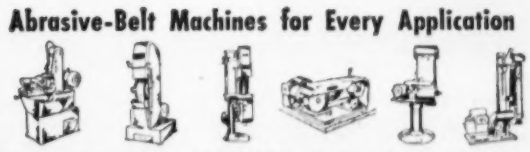
"Our actual sequence of operation on these belt grinders ranges from 400 pieces an hour up to 1500 depending on the size and amount of grinding. The particular job in the photograph was ground quite heavily due to collapsible cores originating on the surface. Our production on this part was approximately 350 pieces per hour."

MODEL B3

Used mainly for fast free-hand grinding of large areas. Runs a 10"-wide belt over a platen 21" long. Applications: metal, wood, composition. Can be used wet for grinding plastics, glass, etc. Moderately priced.

Adjustable to vertical or horizontal position.

Abrasive-Belt Machines for Every Application



Automatic Feed Grinder | Contour Grinders | Flexible Belt Grinders | Bench Grinders | Centerless Grinders | Contact Grinders

PORTER-CABLE MACHINE COMPANY
6031 N. Salina St., Syracuse 8, N. Y.
Please send me your free booklet showing how Abrasive-Belt Machining reduces costs on many operations.
Name _____
Address _____
City _____ State _____

Mfgrs. of SPEEDMATIC and GUILD Electric Tools
In Canada write: Strongridge, Ltd., St. Catharines, Ont.

For more details circle NED-9100 on enclosed inquiry slip

KEEP PRODUCTION ROLLING WITH SWIFT-FLOOR

PLASTIC FLOOR RESURFACER ... STANDS 50,000 LB. LOADS

60 SECONDS AFTER APPLICATION

PRIME! FILL! TAMP! USE!

Prime, fill, tamp—and you have an efficient new floor ... skid-proof, fire-proof, resilient.

Use SWIFT-FLOOR over concrete, wood, steel for complete new floors or patching, indoors and out. Ideal for converting non-productive areas to busy, heavy-duty factory space. Write today for free booklet—"60 Swift Seconds!"

MONROE MAINTENANCE MATERIALS

THE MONROE COMPANY, INC.

10703 QUEBEC AVE. • CLEVELAND 6, OHIO

For more details circle NED-9102 on enclosed inquiry slip

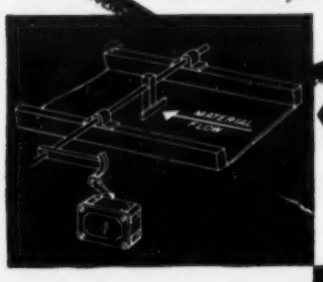
There's a MICRO Precision Switch to make your operations safer and more automatic

It's easy to apply MICRO precision switches to your present equipment. They are available in a wide variety of housings, mountings and actuators that permit quick and convenient installation.

On this page we illustrate three different uses of three different MICRO products which have resulted in making equipment safer and more automatic.

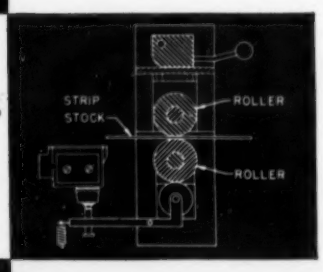
There are MICRO precision switches that will make your old equipment more productive by the addition of a new automatic control, a new safety limit or a new warning signal.

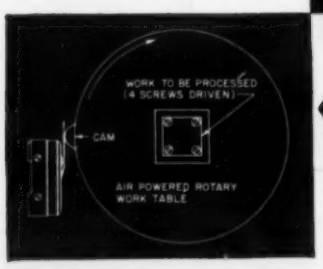
Look in your classified telephone book for your MICRO SWITCH Distributor. They are located in over 120 cities to serve you.



To prevent overloading a belt conveyor feeding a bucket elevator, a paddle was set at the maximum material depth on the conveyor. Overloading the belt moves the paddle and trips the MICRO Explosion-Proof Switch, stopping the conveyor motor and sounding an alarm.

Variations in the thickness of stock in this rim rolling machine, if too great, will depress the lower roller. This actuates the MICRO sealed-type switch which shuts off the motor before damage can be done to rolls, shaft or bearings.





Leaf-actuated MICRO precision switch is actuated by cam on air-powered rotary work table so as to break the current and stop the table at the exact "home" position before the next cycle is started.

What is a new plant idea worth? *Read "MICRO TIPS"*

"MICRO TIPS" is a real gold mine of ideas on how to make plant equipment more productive. Send for your copy today. You'll be glad you did.

MICRO MS SWITCH

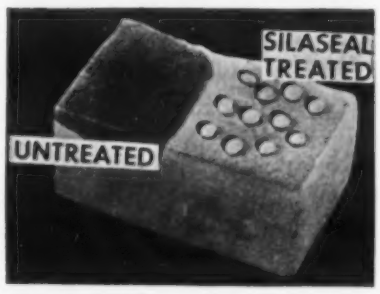
Freeport, Illinois

A Division of Minneapolis-Honeywell Regulator Company

For more details circle NED-9103 on enclosed inquiry slip

New Processes & Materials

MASONRY SEAL
transparent material repels water



Stone, brick, cement block and masonry joints can be rendered waterproof with transparent, colorless silicone-base masonry seal called Silaseal. Intended for above-grade application, it provides invisible coating and penetrates up to ⅜-in., remaining until abrasion and natural erosion wears the surface off. Material is long-wearing, not subject to oxidation and undergoes no chemical change. Dirt does not cling to treated surfaces, but washes off during rainfall. Freezing and thawing cycle that cracks masonry is resisted by application of material which also prevents efflorescence of brick walls. Made by **Surface Protection Co.**, 16807-I Euclid Ave., Cleveland 12, O.

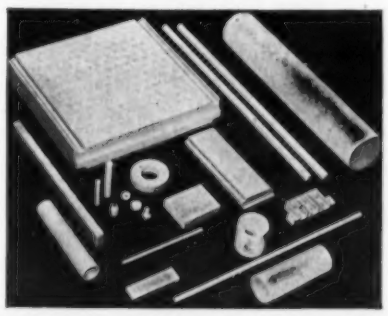
For more details circle NED-9104 on enclosed inquiry slip

NYLON-COATED FABRIC
has high tear and tensile strength

Light in weight, Aeron 26 nylon base coated fabric has 151-lb tear and 170-lb tensile strength warp and fill and withstands outdoor exposure. Developed for aircraft cover applications, material passes −80 to 200° F temperature requirements. Fabric weight is 6 oz. Made by **Flexfirm Products**, El Monte 2, Calif.

For more details circle NED-9105 on enclosed inquiry slip

CERAMIC MATERIALS
two types available have zero and near-zero thermal expansion



Able to withstand extreme thermal shock, Stupalith series of ceramic materials consists basically of lithium aluminosilicate compositions ranging from oxide compositions equivalent to mineral eucryptite, through mineral petalite. Compositions allied to lithium aluminate-silica are also part of group. Material can be used at temperatures up to 2400° F and remains stable indefinitely.

Produced in two types with zero and near-zero thermal expansion, material withstands heating to 2000° F and plunging into liquid air 100 times without apparent effect. Characteristics make material adaptable for pickling bath containers, kiln furniture, induction heating, wire coil forms, metal pouring ladles, insulators, jet engine exhaust liners and dilatometer tubes and rods. Made by **Stupakoff Ceramic & Mfg. Co.**, Dept. D, Latrobe, Pa.

For more details circle NED-9106 on enclosed inquiry slip

... the new separable

FLEXCO HINGED BELT FASTENERS

U. S. Patent No. 2,477,855

- For joining grader, trencher, ditcher and other earth moving conveyor belts.
- For belts ⅜" to ½" thick.
- A FLEXCO fastener that is HINGED. Has removable hinge pin.
- Troughs naturally, operates through take-up pulleys.
- Strong, durable . . . pull or tension is distributed uniformly across joint.

Order From Your Supply House. Ask for Bulletin HF 500.

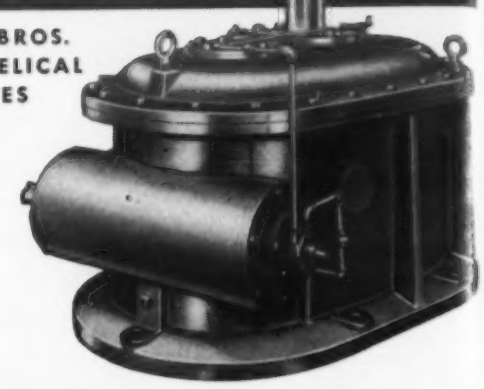
FLEXIBLE STEEL LACING CO

4664 Lexington St., Chicago 44, Ill.

For more details circle NED-9107 on enclosed inquiry slip

AN ANSWER TO YOUR DRIVE PROBLEM

FOOTE BROS. WORM HELICAL DRIVES



Rugged strength, the ability to stand up under punishing loads characterize this drive.

Input shafts are horizontal, output shafts vertical, up or down—making these units ideal for use wherever materials must be agitated or mixed.

Available in ratios from approximately 25 up to 285 to 1—capacities up to 128 h. p.

Write for Bulletin WHA.

FOOTE BROS. GEAR AND MACHINE CORPORATION

Dept. NE, 4545 S. Western Blvd. • Chicago 9, Illinois

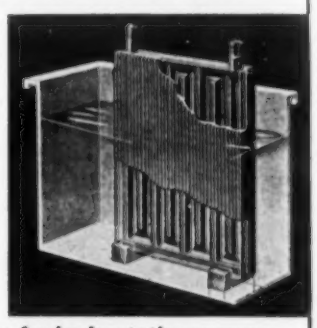
FOOTE BROS.

Better Power Transmission Through Better Bears

For more details circle NED-9108 on enclosed inquiry slip

Udylite IMPERVITE

GRAPHITE PLATE HEATERS



These plate type heat exchangers are specially designed for either heating or cooling pickling and plating tanks. They are built to withstand considerable shock—both mechanical and thermal. The maximum recommended operating pressures are 50 P.S.I. gage for steam and 75 P.S.I. gage for hydrostatic pressure. Adequate heating or cooling capacity for any size tank can be attained by cementing together basic plate sizes in various combinations.

IMPORTANT: When placing order be sure to include the following information: Type of solution, length of heat-up period in hours, cubic feet volume of solution, operating temperature (°F) of tank, steam temperature (°F) and pressure (PSI).

THE UDYLITE CORPORATION

DETROIT 11, MICHIGAN

PIONEER OF A BETTER WAY IN PLATING

For more details circle NED-9109 on enclosed inquiry slip

FOAM-FABRIC TAPE

for:

- VIBRATION DAMPENING
- GASKETING • SEALING
- WEATHER STRIPPING • INSULATING...

NEW **"ANDAL"** FOAM-TAPE combines the functional cushioning action of foamed-latex with the tensile strength of cloth. Formed by a newly developed process that permanently embeds cloth in thin gauges of foam, **"ANDAL"** industrial tape is recommended for a wide variety of uses.

FOAM-TAPE can be furnished having either water-soluble or pressure-sensitive adhesive to meet individual requirements. This versatile material can be supplied in widths from ⅜-inch to any desired maximum and in lengths up to 25 feet. Foam gauges range from $\frac{1}{16}$ to ¼-inch.

Write Today For Sample.

275-AA

ANDREWS-ALDERFER PROCESSING CO., INC.

128-2 ASH ST., AKRON 8, OHIO

For more details circle NED-9110 on enclosed inquiry slip

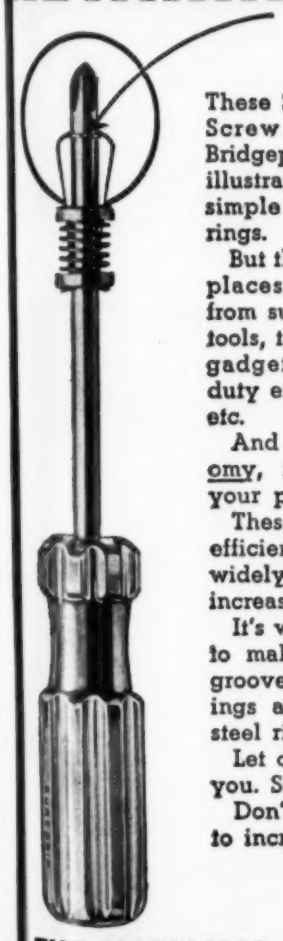
MERRILL
MATERIALS HANDLING
DEVICES

MERRILL BROTHERS
56-13 ARNOLD AVE., MASPETH, N. Y.

For more details circle NED-9111 on enclosed inquiry slip

EXAMINE THE DESIGN OF YOUR PRODUCTS AND MACHINES...

no doubt you too can save time—save materials..and increase your profits—by using NATIONAL RETAINING RINGS



These Sure Grip Screw Holding Screw Drivers, made by The Bridgeport Hardware Mfg. Corp., illustrate an obvious and a very simple application of retaining rings.

But there are thousands of other places where they will save—from such simple applications as tools, toys, small parts and small gadgets to complicated heavy duty engines, large drill presses, etc.

And in addition to their economy, they frequently improve your products.

These inexpensive, yet very efficient, artificial shoulders are widely used, and these uses are increasing daily.

It's wasteful to cut down shafts to make shoulders. Redesign to groove smaller shafts and housings and use these high grade steel rings.

Let our engineers consult with you. Send for folders.

Don't pass up this opportunity to increase profits.

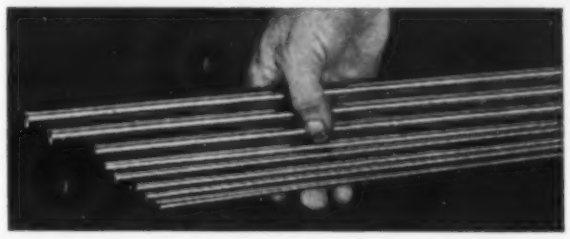
THE NATIONAL LOCK WASHER CO.
NEWARK 5, NEW JERSEY MILWAUKEE 2, WISCONSIN
NATIONAL

For more details circle NED-9112 on enclosed inquiry slip

New Processes & Materials

HIGH SPEED STEEL DRILL ROD offered in 36-in. lengths

To obtain hardened and ground high speed steel drill rod, 10-ft lengths of solid round bar stock are fed through continuous heat treating furnace which uniformly hard-



ens steel. Blanks are cut, then centerless ground. These are available in 36-in. lengths and diameters from 3/32 to 1 in., with diameter tolerance of plus or minus 0.001-in., or as hardened and tempered only in sizes from 0.118 to 0.515-in. Use can be for punches, knock-out pins, dowel pins, rollers, plug gages and tool bits. Made by **Ace Drill Corp.**, Adrian 7, Mich.

For more details circle NED-9113 on enclosed inquiry slip

ALL-PURPOSE LUBRICANTS produced in No. 00 to No. 3 grades

Made with bodying agent for stability under all service and storage conditions, Bentone type Multiplex lubricants have no melting point and retain lubricity and adhesive characteristics under all normal temperature conditions. Although insoluble in water they will absorb moisture when in service without losing their adhesive or lubricating qualities. Produced in No. 00 to No. 3 grades, lubricants contain no metallic soaps or fatty acids and are plastic or pumpable at temperatures as low as −20° to 15° F depending upon grade. They have been tested on both plain and antifriction bearings under all temperature conditions and are suggested as a lubricant for chassis, industrial equipment, water pumps, universals and wheel bearings. Developed by **Hood Refining Co.**, 526 S. Pennsylvania Ave., Greensburg, Pa.

For more details circle NED-9114 on enclosed inquiry slip

HAND CLEANER removes embedded grime and grease

When rubbed on skin, Skin-Cote waterless hand cleaner turns into liquid to loosen dirt, grime, rubber cement, asphalt, paint and other materials that are embedded in skin. It contains solvent, buffered by emollient oils, petrolatum and lanolin to protect skin. Cleaner can be removed by wiping hands with paper towel or cloth. Photo shows hands before and after removing gasket cement with cleaner. Made by **Boyer-Campbell Co.**, 6540 St. Antoine St., Detroit 2, Mich.

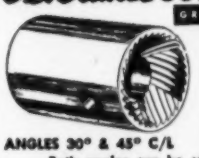
For more details circle NED-9115 on enclosed inquiry slip

Severance DEBURRING CUTTERS HIGH SPEED CARBIDE

Unexcelled for power and hand deburring
Sectional pattern teeth give shearing action

Severance INSIDE DEBURRING CUTTERS
GROUND-from-the solid
Select 45° High Speed cutters from 28 standard sizes and 30° cutters from 35 sizes—from 1/4" to 3" diameters.
Both angles can be supplied in CARBIDE

Severance OUTSIDE DEBURRING CUTTERS
GROUND-from-the solid



For speedy light deburring of rod ends and tubing O.D's., either off-hand or in screw machines. Select 30° cutters from 14 standard sizes and 45° cutters from 10 sizes—up to 4 inch diameter.
ANGLES 30° & 45° C/L
Both angles can be supplied in CARBIDE

OUTSIDE CHAMFERING MILLS

Operate in machines to perform heavy chamfering without chatter —in above size range and angles.

HEADQUARTERS FOR DEBURRING AND CHAMFERING TOOLS DEVOID OF CHATTER

Severance HAND DEBURRING CUTTERS

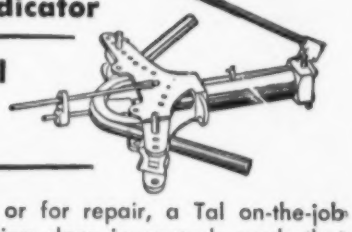
"A Twist of the wrist" easily bites off the burr left by drill or punch.
Ten standard sizes for 1/4 to 2" diameters.
Write for Bulletin 16-D

Complete REGRINDING Service — by New Tool Craftsmen — Savings are thus multiplied —

SEVERANCE TOOL INDUSTRIES, Inc.
761 Iowa Ave Saginaw, Michigan

For more details circle NED-9116 on enclosed inquiry slip

A Tal Bender
with new bend indicator



Easy does it with a Tal

No training required

For original installation or for repair, a Tal on-the-job bender for pipe or tubing does in seconds work that otherwise takes many minutes. Because a Tal repays its cost so quickly, and does it time and again, thousands are in use everywhere. Write today for factual bulletin.

Tal Bender, Inc. Dept. NED-4 Milwaukee 2, Wis.

For more details circle NED-9117 on enclosed inquiry slip

the new APCO TORQUE WRENCH "CLICKS"

No. PF 50
0-600 inch lbs.
Length 15"
Weight 1 1/2 lbs.

. . . warns worker when preset tension is reached!

Apco Tension Drivers, available in four standard sizes. 0-25, 0-6, 0-12, 0-80 inch lbs. Interchangeable heads on two largest sizes.

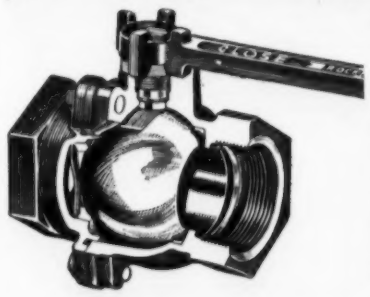
Simplifies mechanical operations and eliminates "guesswork" on assembly and maintenance work — particularly in hard-to-get-places—wherever nuts, bolts, and studs require specific tensioning. Made with dial for accurate preset tension, this wrench makes a distinctly audible "click" when preset torque is reached. Unaffected by temperature change or jarring, guaranteed accurate. Apco Torque Tools—made of heat-treated nickel steel—are available in both visible and preset dial models—in sizes from zero to 280 inch grams., up to 2,000 ft.-lbs.

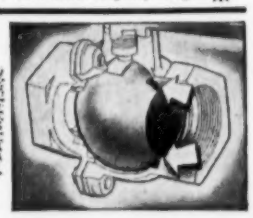
SEND FOR DESCRIPTIVE FOLDER TODAY!

APCO MOSSBERG CO.
161 LAMB ST., ATTLEBORO, MASS.

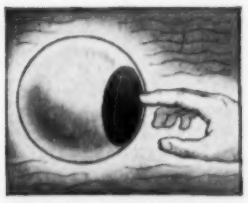
For more details circle NED-9118 on enclosed inquiry slip

ROCKWOOD Ball VALVES





1. Leak proof service



2. Full *round* flow

3. Quick opening and closing — easy to install

These remarkable engineering features of the Rockwood Ball Valve will give efficient and economical operations thru years of everyday rugged use. They help increase production and profits by cutting maintenance cost.

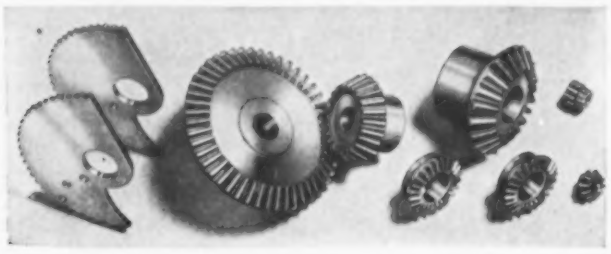
Install Rockwood Valves in your plant today and your valve headaches will stop!

Recommended for 300 p.s.i., Rockwood Valves are available in all pipe sizes from 1/2" to 4".

Distributors in all principal cities. *Write for illustrated folder V-4.*

ROCKWOOD SPRINKLER CO.
44 HARLOW STREET WORCESTER 5, MASS.

For more details circle NED-9119 on enclosed inquiry slip



Rynel

fractional h.p.

Gears

For All Small and Medium-Sized Gear Applications

Controlled Blank to Finished Gear

Rynel Certified Gears are made exactly to your specifications. Accuracy, tooth form and finish are controlled from the start with accurately formed blanks from our own gear blanking department. Experienced gear men cut true tooth forms with the latest precision equipment. Finished quality is checked by skilled gear inspectors. • That's why designers, engineers and product development men recognize Rynel Certified Gears for quality and dependability.

SPUR • HELICAL • WORM • WORM GEAR
INTERNAL • SEGMENT • SPROCKET • RATCHET
FINE PITCH • STRAIGHT-TOOTH BEVEL GEARS

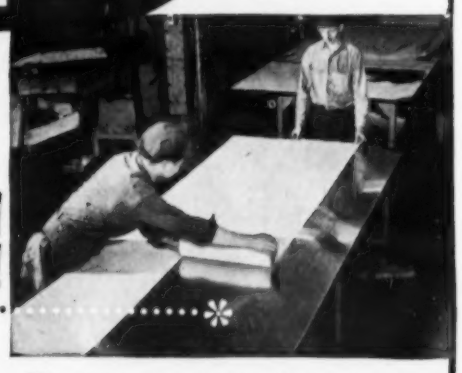
Send For Our Latest Bulletin

Rynel Corporation
302 MILLER ST., STERLING, ILLINOIS

For more details circle NED-9120 on enclosed inquiry slip

Mystik Protecto-Mask

SAVE that polished surface!



Here's sure protection for those expensive, highly polished surfaces—stainless steel, aluminum, plastics, many more!

• Keep them protected during *fabrication, storage, in shipment.* • MYSTIK Protecto-Mask is *Self-Stik* . . . goes on easily from the roll to surface, peels off easily. Leaves no residue. • Protects against scratches, and production damage . . . cushions blows . . . shields against splatter from welding arc. Can be used for layout and diagramming.

Ask your supplier or write for full information and sample. Mystik Adhesive Products, 2657 N. Kildare, Chicago 39.

For more details circle NED-9121 on enclosed inquiry slip

no heating problems in these star spots . .

YOU CHECK IT! See a Reznor heater installation and talk to the owner. If you don't know of one, off hand, call a Reznor Dealer. The telephone directory should give his name—if not, write us.

YOU'LL FIND THAT the Reznor unit is a compact heating machine that economically does a more effective job. Units install easier, faster and at lower cost.

because **REZNOR** the world's largest-selling automatic gas unit heaters do the job

FLOOR MODEL FOR OFFICE OR HOME | SUSPENDED MODEL FOR STORE, SHOP AND FACTORY

REZNOR MANUFACTURING CO.
14 UNION ST. • MERCER, PENNA.
Send me 20-page catalog in full color

Name_____
Firm_____
Address_____
City_____ Zone____ State____

For more details circle NED-9122 on enclosed inquiry slip

New Processes & Materials

SNOW-MELTING CHEMICAL
improved type is 99 per cent active

Improved Melt chemical snow-melting pellets have 30 times the thawing capacity of salt and 10 times that of flake calcium chloride. Pellets are smaller than previous material because they are 99 per cent active, producing greater exothermic action. If used at start of storm, material will melt subsequent snow falls. Frozen gutters, pipes, sewers and railway switches can be thawed with chemical. It is available in 25-lb pails (illustrated), 100-lb fiber drums, and is offered in ton lots packed in 110-lb moistureproof paper bags. Made by **Chem Industrial Co.**, 1114 Hippodrome Bldg., Cleveland 14, O.

For more details circle NED-9123 on enclosed inquiry slip

FABRIC CHAMOIS SUBSTITUTE
not affected by cleaning compounds

A latex-treated nonwoven fabric that looks, feels and absorbs water same as ordinary chamois, Mirasham is tough, lint-free and does not shrink. It can be used where chamois might be damaged since it is not affected by soaps, detergents, gasoline, alcohol, grease, oil, naphtha, benzine, wax, paint remover, scouring powder, boiling water and bleaches. Product is practical for streakless wiping of windows, mirrors, automobiles and all metal, glass, tile, porcelain or wood surfaces. It also will not harden or discolor even when boiled or under continuous usage. Distributed by **Betterby Inc.**, 1150 Broadway, New York 1, N. Y.

For more details circle NED-9124 on enclosed inquiry slip

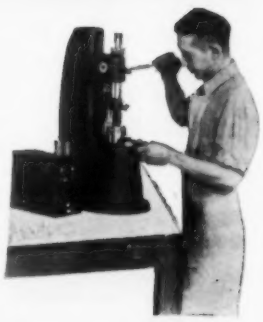
WELDING ELECTRODE
expendable cap affords copper saving

An expendable cap which fits into semipermanent adapter shank is central feature of Kaptrode resistance welding electrode. Shank in turn fits into standard Morse taper electrode holder, and depending upon its length up to 75 per cent copper savings is afforded. Electrodes are made in pointed, dome, flat, offset, truncated cone and radius nose styles in class 1, 2 and 3 RWMA alloys and No. 1 and 2 Morse taper sizes. Adapter shanks are available in two Morse taper sizes and nine lengths ranging from 1¼ to 3¼ in. in increments of ¼-in. Electrodes fit interchangeably into any adapter shank of corresponding Morse taper size and project ¾ in. from shank. Made by **Weiger Weed & Co.**, 11648 Cloverdale Ave., Detroit 4, Mich.

For more details circle NED-9125 on enclosed inquiry slip

SPRING TESTING:
The Solution of Many a Baffling Problem!

HERE'S WHY



When the performance of products with a spring mechanism varies, experience has proved that the most likely source of the trouble is the spring. It may be that certain springs are out-of-square, or have hidden flaws in the wire, or may be too weak or too strong for their intended purpose.

Check the springs FIRST! You'll find it will save you many tedious hours of hit-and-miss trouble shooting.

LINK Spring Testers

For speedy and accurate testing of springs—compression, tension or torsion—get a LINK Spring Tester. Hand operated instruments for spot-check, laboratory, and inspection. Also motor-driven instruments for production testing. Moderately priced. Send for complete information.

LINK ENGINEERING CO.
13846 Elmira Detroit 27, Mich.

Write for Catalog

For more details circle NED-9126 on enclosed inquiry slip

NOW—GET DIESEL POWERED BUDA TOWING TRACTORS

LOWER operating cost
LESS maintenance
GREATER safety
LONGER operation between overhauls

Diesel Powered A-14-V Towing Tractor—2400 lbs. draw bar pull

8H-28

Cut fuel costs 50 to 65% with Buda Diesel-powered towing tractors . . . and get safer, non-toxic, non-contaminating operation. Eliminate fire hazards. Diesel-powered tractors can operate safely in hazardous areas. Buda Diesel power gives more hours of dependable, low-maintenance operation and long-life performance.

Ask your nearby Buda Material Handling Distributor about Buda Diesel Powered equipment. He has the facts. Write for Bulletins and specification data. THE BUDA COMPANY, HARVEY, ILL.

. . . The Line with ALL 3 for Diversified Handling

BUDA Towing Tractors · Platform Trucks · Fork Trucks

For more details circle NED-9127 on enclosed inquiry slip

CORROSION-RESISTANT TYGON PAINT

Use Tygon Paint to protect structural steel, tanks, process equipment, etc. from attacks by acid fumes, condensates or spillage. Apply cold by spray gun or brush to metal or concrete. Air dries within minutes. White, black, clear and a wide range of colors.

• Resists acids, alkalies, water
• Tough and elastic, won't chip
• Non-oxidizing
• Non-flammable when dry

WRITE FOR BULLETIN 712

U. S. STONEWARE
Since 1865
AKRON, OHIO
MANUFACTURERS OF CORROSION-RESISTANT MATERIALS AND EQUIPMENT

For more details circle NED-9128 on enclosed inquiry slip

ROTOR NUT SETTERS PAY FOR THEMSELVES IN 10 DAYS

Job: Assembly of sink tops. Were using hand ratchet type screw drivers to set ¼" square nuts—20 to a sink top.

Problem: To cut costs and improve product. To control tightness of nut-setting and avoid ripples in linoleum when back board and trim were pulled in place. Tools were tough on workers' hands.

Called in the Rotor Application Engineer.

Results: Changed over to Rotor Midget Nut Setters.

Output increased from 4 tops per hour to 16 tops per hour. 75% savings in assembly costs paid for the $90 tools in 80 working hours.

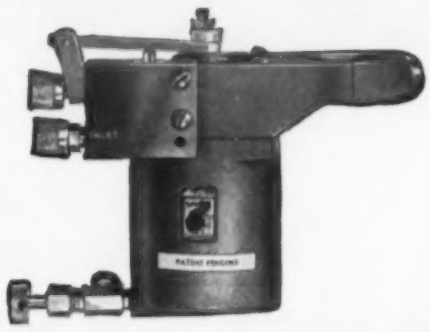
Extraordinary? Not at all . . . and we'd be glad to tackle *your* portable tool problems—grinding, screw driving, sand ramming, buffing, or what have you!

Yours for lower costs
AIR O'TOOL

THE ROTOR TOOL CO.
CLEVELAND, OHIO

For more details circle NED-9129 on enclosed inquiry slip

DOUBLE YOUR DRILL PRESS OUTPUT FOR $33



USE A NEW MEAD PNEUMATIC DRILL PRESS FEED FOR DRILLING REAMING TAPPING

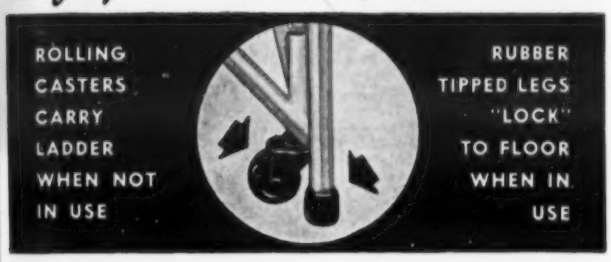
This simple, inexpensive device quickly converts standard drill presses into semi-automatic machines — increases production substantially on suitable jobs: double or more in some cases.
Clamps to spindle quill in a few seconds. Automatically closes air fixture on work. Adjustable feed control and break-through cushion. Quick return. Easy to synchronize with automatic cycle equipment.

Air-Power does it quicker, cleaner, better. Write today for latest complete catalog.

MEAD SPECIALTIES COMPANY
4114 NO. KNOX AVE., DEPT. N-111-A, CHICAGO 41, ILL.

For more details circle NED-9130 on enclosed inquiry slip

IN EVERY BALLYMORE LADDER *Safety* IS BUILT-IN, AUTOMATIC



Ballymore Ladders are strong and sturdy. Mounted on smooth running ball-bearing casters they are easily pushed about, yet when in use are perfectly stable, can't roll or kick-out because the weight of a person on the ladder retracts the casters, puts the load onto widely spaced rubber tipped legs. Workers have a positive sense of security that gives them absolute freedom of action.

That's why Ballymore Ladders save time, speed up work, prevent accidents and fear of accidents . . . save money.

Various types, single to eight steps, with and without hand rails.

WRITE TODAY FOR COMPLETE CATALOG

BALLYMORE COMPANY
WAYNE 3, PENNSYLVANIA
Safety Steel Step-Ladders for Every Need

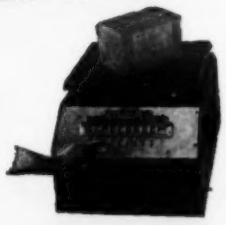
For more details circle NED-9131 on enclosed inquiry slip

DETECTO SCALES

There's a precision-accurate Detecto Scale for your specific weighing and counting need. The Detecto helps increase production, yet assures you maximum accuracy by making slightest weight discrepancies immediately visible.

DETECTO POST-O-METER

The Modern Parcel Post Scale. Just press the zone key. There's one figure — the correct postage — illuminated, easy-to-read.



Write for Literature

DETECTO SCALES • INC.
MAKERS OF FINE SCALES SINCE 1900
540NN N. PARK AVE. • BROOKLYN 5, N.Y.
SCALE ENGINEERS IN ALL PRINCIPAL CITIES

For more details circle NED-9132 on enclosed inquiry slip

New Processes & Materials

CORRUGATED SEALING GLUE for hand or sealing machine use

Sealing of corrugated containers where reuse or easy opening is desired is possible with Non-Tear case seal adhesive. Glue is designed primarily for hand work, but can be used in automatic case sealing machines. It is practical for use where products are packed in take-home cartons and require ease of opening. Made by **Federal Adhesives Corp.,** 212 Wythe Ave., Brooklyn 11, N. Y.

For more details circle NED-9133 on enclosed inquiry slip

PHOSPHATE-CHROMATE PRIMER used to prime rusted surfaces

After removal of loose rust and scale by wire brush, metal surfaces can be painted after priming with Ospho phosphate-chromate primer. It is a formula of orthophosphoric and dichromate with extenders and wetting agents. When applied to rust, primer causes it to chemically change to iron phosphate, an inert, hard, dark gray substance. Rust action is stopped and paint attaches itself to surface to exclude moisture and oxygen. It is effective on exterior and interior surfaces. Made by **Rusticide Products Co.,** 3135 Perkins Ave., Cleveland 14, O.

For more details circle NED-9134 on enclosed inquiry slip

MACHINERY LUBRICANT general purpose oil clings to metal

Tacky and clinging tenaciously to moving parts of machinery, Kling-Oil general purpose machinery oil has an SAE-30 viscosity. Because there is minimum of drippage and spattering, use of oil provides safe and clean shop conditions. Tackiness property is not affected by rubbing action of machinery. No gumming or build-up is experienced after continued use. Application can also be to circulating systems but without certain of above advantages. Made by **Magnus Chemical Co.,** Dept. NED-69, Garwood, N. J.

For more details circle NED-9135 on enclosed inquiry slip

FLOOR PRESERVATIVE applied with brush or hair broom

Factory-prepared Penetred resin-base preservative and sealer for wood and concrete floors is antislip and resistant to moisture, gases, chemicals, oils, greases, mildew and other destructive agents. It penetrates surface of floors to depth of pores and voids, filling them with binding, dyed resins to form a sealed floor surface. Sealer is applied by brushing it over clean surface with brush or hair broom, and dries in 4 to 6 hours for light traffic. It is available in Tile Red and Floor Gray colors and is packaged in 1, 5, and 30 gal containers. Made by **Rock-Tred Corp.,** 7430 N. St. Louis Ave., Skokie, Ill.

For more details circle NED-9136 on enclosed inquiry slip

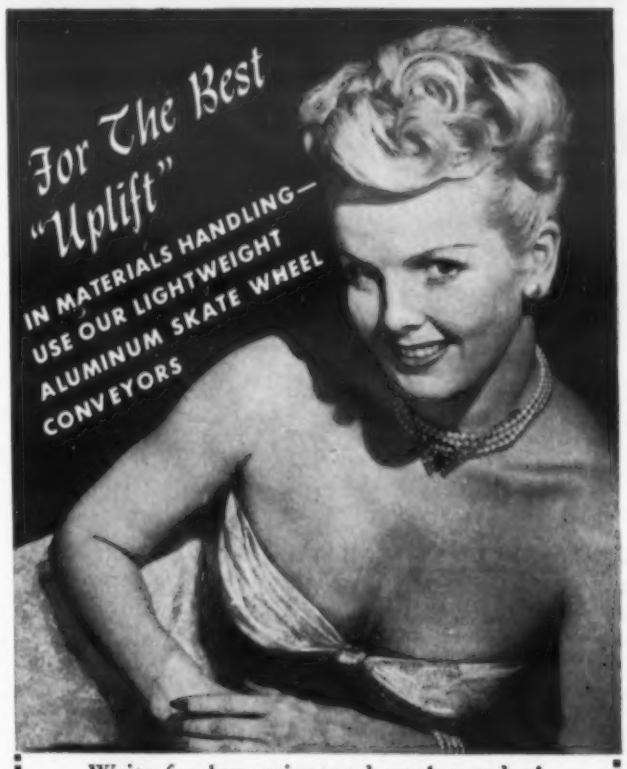
EVERY ENGINEER will want a copy of this BULLETIN

SEND FOR BULLETIN 110

● It's easy to get the tight cylinder for even the most special jobs when you use Hannifin's big hand-book on HYDRAULIC CYLINDERS. 52 pages of helpful specification and engineering data, complete with diagrams and dimensions. The Hannifin line is complete! 12 standard bore diameters, 1" to 8". . . any length stroke you specify . . . 11 standard mounting styles . . . standard, double end or heavy duty (2:1) piston rods . . . available with adjustable cushions . . . pressures to 1500 lbs. per sq. in. Send for Bulletin 110. Hannifin also builds custom cylinders in any quantity to special designs. *Bring us your cylinder problems!*

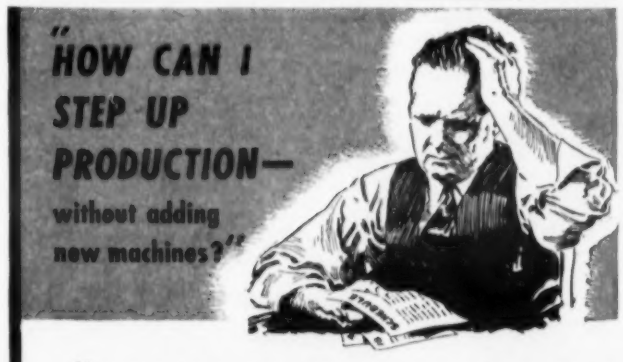
HANNIFIN CORPORATION
1127 S. Kilbourn Ave., Chicago 24, Ill.

For more details circle NED-9137 on enclosed inquiry slip



Write for low prices and catalog today!
GEE-VEE-LINE, OAKS 3, PA.
Manufactured by HASLETT CHUTE AND CONVEYOR CO

For more details circle NED-9138 on enclosed inquiry slip

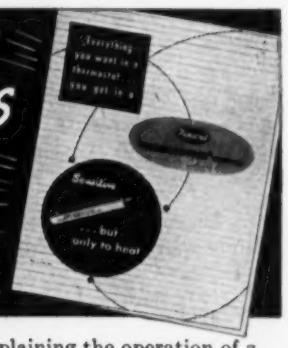


How to do *that* is "the answer to the maiden's prayer" for the harassed Production Man today. Well, there's one thing very sure about it. If your machines occasionally stand idle at odd moments (even if this down-time amounts to only a few minutes each day), they aren't giving you all-out production. Now, *you* can't watch each machine all day, but a *Servis Recorder* can—and *does.* And its chart reports every idle period. Then you'll know what to do to step up production. Write for our folder—"*A Busy Plant.*" THE SERVICE RECORDER CO., 1375 Euclid Avenue, Cleveland 15, Ohio.

The Servis Recorder
The "Time Clock" for Machinery

For more details circle NED-9139 on enclosed inquiry slip

GET THE *Inside Facts* about unusual multi-purpose thermostat



Send *now* for free booklet explaining the operation of a unique thermostat. Find out how it can help you. Used to control heat, humidity, vapor level, radiant heat, pressure, and other variables, low-cost Fenwal THERMOSWITCH thermostats have a single-metal shell that expands or contracts *instantaneously* with temperature changes, making or breaking totally enclosed electrical contacts. Fast, accurate, sensitive.

Fenwal THERMOSWITCH®
The Precision, Multi-Purpose, Thermostat Control
SENSITIVE...*but only to heat*

MAIL TODAY

FENWAL, INC., 811 Pleasant St., Ashland, Mass.
111 South Burlington Ave., Los Angeles 4, Cal.
Temperature Control Engineers

Please send me the Fenwal booklet "Everything you want in a thermostat."

Name.....Position.....
Company.....
Street.....
City.....Zone.....State.....

For more details circle NED-9140 on enclosed inquiry slip

New!
NOBODY BUT ARO
OFFERS YOU
Instant PUSH-BUTTON Reverse

A REVOLUTIONARY SCREW DRIVER AND NUT SETTER

ARO's new push-button valve means *instant reverse action*... no need to remove from work... no stopping to turn levers... no wasted time.

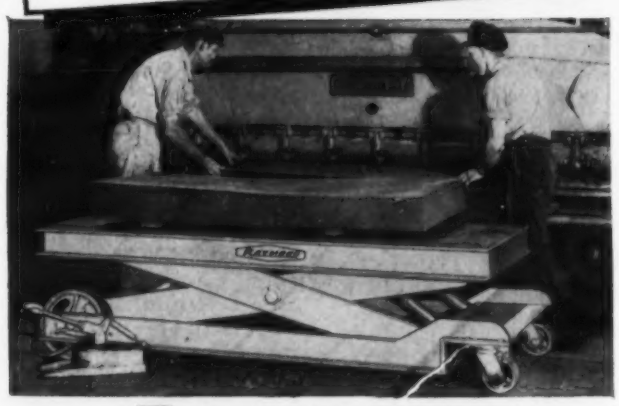
Adjustable clutch (available with positive clutch) Length 7-11/16"... outside diameter 1-5/16"... weight 1.4 lb.

This outstanding tool must be seen in action to appreciate its amazing action. Write for literature.
The Aro Equipment Corporation, Bryan, Ohio.
Aro Equipment of Canada, Ltd., Toronto

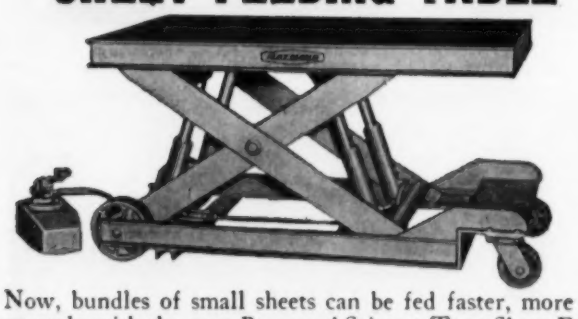
ARO AIR TOOLS Also... LUBRICATING EQUIPMENT... HYDRAULIC EQUIPMENT... AIRCRAFT PRODUCTS... GREASE FITTINGS

For more details circle NED-9141 on enclosed inquiry slip

NEW WAY to FEED Thick BUNDLES of SHEETS



RAYMOND
Hydraulic Scissors-Type
SHEET FEEDING TABLE



Now, bundles of small sheets can be fed faster, more accurately with the new *Raymond* Scissors-Type Sheet Feeding Table.

Only 66" long, it has a scissors-type lifting mechanism that elevates the top from 18" to 36", enabling it to hold thick bundles for feeding. Top can't sag under off-center loads because it's supported at four points by Hydraulic rams.

With *Raymond* Scissors-Type Sheet Feeding Tables, manual lifting is banished — the operator merely slides sheets to presses, shears or brakes. Single speed foot pump or power operated pump raises table. Capacities: 6,000 or 10,000 lbs.

FREE BULLETIN. Send for Bulletin 261, Supp. 3—it gives complete details.

RAYMOND
Formerly LYON-Raymond Corporation
ELECTRIC INDUSTRIAL TRUCKS • HYDRAULIC ELEVATING EQUIPMENT
The RAYMOND CORPORATION
4155 SpaceMaker St., Greene, N. Y.

For more details circle NED-9142 on enclosed inquiry slip

New Literature and Catalogs

Radio & Electronic Parts

Allied Radio Corp.—Emphasis has been placed on equipment for industrial maintenance, research and production requirements in 1952, 212-page illustrated catalog, covering radio, television and industrial electronic equipment. Descriptions and prices are given on complete line of products.

For more details circle NED-9143 on enclosed inquiry slip

Speed Reducers & Gearmotors

Abart Gear & Machine Co.—Engineering data on how to select proper speed reducer to fit requirements, including horsepower ratings, ratios and installation graphs are included in 96-page illustrated pocket-size catalog of speed reducers and right angle gear motors.

For more details circle NED-9144 on enclosed inquiry slip

Fabricating & Finishing Facilities

Geuder, Paeschke & Frey Co.—Detailed descriptions of company's metal fabricating, finishing and assembling facilities are covered in 12-page brochure. Also shown are typical examples of military articles produced on subcontract basis.

For more details circle NED-9145 on enclosed inquiry slip

Wire Cloth Strainer Design

Michigan Wire Cloth Co.—This 8-page illustrated "Engineer's Manual of Wire Cloth Strainer Design" details selection of grade of wire cloth and size, shape and construction of strainer. Company services, including technical, research, manufacture, literature and sample kits, are described.

For more details circle NED-9146 on enclosed inquiry slip

Three-Dimensional Planning

"Visual" Planning Equipment Co.—Whys of three-dimensional plant layout and production planning are covered in 80-page catalog, along with explanation of functions and advantages of such planning. Company's Repro-Templet system of producing reproduction prints is illustrated, and itemized list of over 6000 standard stock items is given.

For more details circle NED-9147 on enclosed inquiry slip

Flexible Shafting

Stow Mfg. Co.—Typical applications of flexible shafting, plus tables for calculating torque and deflection per foot of length, are found in 12-page illustrated bulletin 515. Also included are sections on integral design connections and use of standard power drive shafts for power transmission problems where it is impractical to redesign equipment.

For more details circle NED-9148 on enclosed inquiry slip

Powder Metallurgy Uses

Applications of powder metallurgy in bearings and structural parts is subject of 4-page illustrated publication "Bound Brook Bulletin." Monthly issues will be sent when requested on letterhead to Bound Brook Oil-Less Bearing Co., Bound Brook, N. J.

For more details circle NED-9149 on enclosed inquiry slip

PURE WATER
DISTILLED WATER?
PROBLEMS SOLVED WITH Barnstead EQUIPMENT
DEMINERALIZED WATER?

In hundreds of manufacturing processes, where complete purity is needed, Barnstead Stills provide the highest-quality, lowest-cost, chemically pure, sterile water from ½ to 1000 gallons per hour. With over 100 different models to choose from, Barnstead can provide the exact still to fit your particular needs. For Barnstead Laboratory and Industrial stills are the proven standard of the scientific and industrial world.

WRITE

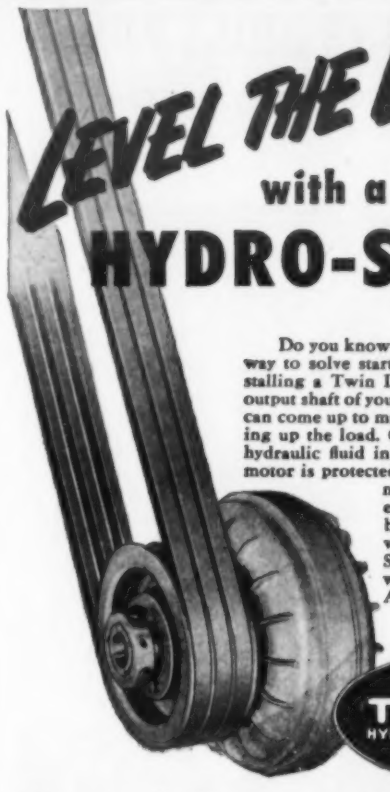
Catalog #123 gives both sides of the Pure Water Picture. Since Barnstead makes both stills and demineralizers, you'll find this catalog complete, authoritative, unbiased. Write Today!

Where modern manufacturing processes require only high-test mineral-free water, Barnstead Demineralizers are the best producers . . . 5c per 1000 gallons with a minimum of supervision and maintenance. Many new industries are turning to Barnstead Demineralized Water for greater production, fewer rejects and better quality control.

First in Pure Water since 1878
Barnstead STILL & STERILIZER CO.
16 Lanesville Terrace, Forest Hills, Boston 31, Mass.

For more details circle NED-9150 on enclosed inquiry slip

LEVEL THE LOAD with a TWIN DISC HYDRO-SHEAVE®



Do you know the simple and inexpensive way to solve starting load problems? By installing a Twin Disc HYDRO-SHEAVE on the output shaft of your electric motor. The motor can come up to maximum torque before picking up the load. Overloads merely cause the hydraulic fluid in the coupling to slip. The motor is protected. Another result is less demand current, sometimes even a smaller motor to do a bigger job. Level the load with a Twin Disc HYDRO-SHEAVE Drive and save money while you save machinery. Ask for Bulletin No. 145-B.

TWIN DISC HYDRO-SHEAVE DRIVES

TWIN DISC CLUTCH COMPANY, Racine, Wisconsin • HYDRAULIC DIVISION, Rockford, Illinois
BRANCHES: CLEVELAND • DALLAS • DETROIT • LOS ANGELES • NEWARK • NEW ORLEANS • SEATTLE • TULSA

For more details circle NED-9151 on enclosed inquiry slip

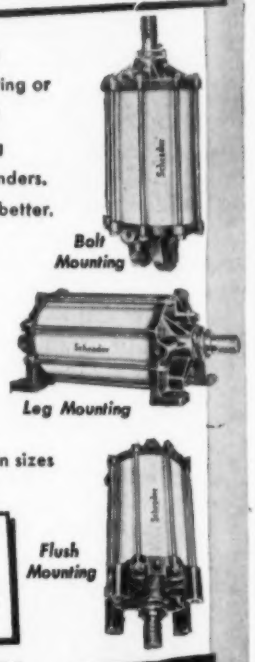
Make Hard Work EASY with these BRAWNY NEW AIR CYLINDERS

What's your problem? Operating press brakes, clutches, doors, clamping work, lifting or lowering, pushing or pulling heavy loads?

Investigate the time-saving, work-saving advantages of the new Schrader Air Cylinders. See how they do hard jobs faster, safer, better.

See what Schrader has done to make this new series of air cylinders tops for ruggedness, for fast cycle operation, and ease of mounting. See how interchangeability of the parts cuts down maintenance.

Schrader Air Cylinders are made in Single Acting and Double Acting types; in sizes from 1" to 8" bore; and in any stroke.



Bolt Mounting
Leg Mounting
Flush Mounting

Write for complete information and literature about Schrader Air Cylinders and Air Control Valves. For information about hundreds of other Schrader Air Control Products ... Press Controls, Air Ejection Sets, Air Line Couplers, Blow Gun etc., ask for 72-Page Catalog.

A. SCHRADER'S SON
478 Vanderbilt Ave.
BROOKLYN 17, NEW YORK, Dept. ND-7
Division of Scovill Manufacturing Company, Incorporated

Schrader

For more details circle NED-9152 on enclosed inquiry slip

Superior Times

SMALL TITANIUM TUBING MAKES BIG NEWS

Titanium . . . today's youngest and most virile metal, is now available in small diameter tubing. Approximately 60% of the weight of stainless steel, Titanium tubing possesses an unusual combination of mechanical and physical properties. WELDRAWN* Titanium tubing, of commercial purity or better, has for many months been in limited production at Superior. Sizes now being drawn range from ⅛" O.D. to 1¼" O.D. with a maximum wall of .083". For technical information about properties and applications write for Data Memorandum #10. Superior Tube Company, 2018 Germantown Avenue, Norristown, Pennsylvania.

Superior
THE BIG NAME IN SMALL TUBING

All analyses .010" to ⅝" O.D.
Certain analyses (.035" max. wall) up to 1⅜" O.D.

*Reg. U.S. Trade Mark — Superior Tube Co.

West Coast: Pacific Tube Company
5710 Smithway Street, Los Angeles, California • UNderhill 0-1331

For more details circle NED-9153 on enclosed inquiry slip

Switch to PLATECOIL for
(REPLACES PIPE COIL)

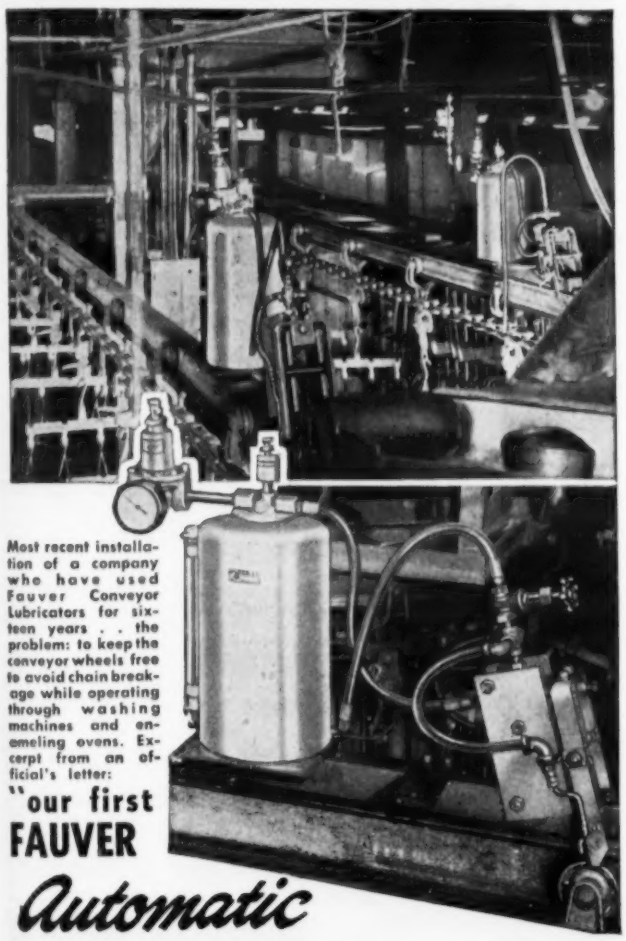
TROUBLE-FREE Tank Heating and Cooling

Platecoils have many times the useful life of pipe coils thus preventing many production delays. When repairs are necessary, plates are changed from outside the tank in a matter of minutes without dumping tank solution. You can save STEEL, MAN-HOURS and MONEY by using Platecoils and you will enjoy TROUBLE-FREE heating and cooling.

NEW Technical Manual No. P57 simplifies the solution of heat transfer problems. Send for your copy today.
SEE US AT THE CHEMICAL SHOW BOOTHS 707-708

PLATECOIL Division
KOLD-HOLD MFG. CO.
LANSING 4, MICHIGAN

For more details circle NED-9154 on enclosed inquiry slip



Most recent installation of a company who have used Fauver Conveyor Lubricators for sixteen years . . the problem: to keep the conveyor wheels free to avoid chain breakage while operating through washing machines and enameling ovens. Excerpt from an official's letter:

"our first FAUVER Automatic CONVEYOR LUBRICATOR was installed in 1934" . . .

"the conveyor is 3700 feet long and goes through enamel ovens, so lubrication was a serious problem. Several types of lubricators were tried without success. We resorted to manual application of oil which was an expensive item. This was necessary because when a sufficient number of wheels froze, the chain would break, meaning a cessation of production . . . This Automatic Trolley Lubricator now keeps the wheels well oiled, the oil is applied in a mist so that it does not get on the enameled work and those former mechanical troubles are eliminated" . . . there are

also FAUVER AUTOMATIC GREASE Lubricators driven by contact with the trolley wheels; operates on wheels equipped with or without Grease fittings—we specialize in conveyor lubrication problems—send for complete information . . .

J. N. FAUVER COMPANY, INC.
43 W. Hancock DETROIT 1.

For more details circle NED-9155 on enclosed inquiry slip

New Literature—Continued

Governor Problems

Pierce Governor Co.—"How To Get the Most Out of Your Governor" is answered in Control, a publication which presents centrifugal governor problems and applications. Photographs and schematic drawings are included with descriptions of governing mechanisms.

For more details circle NED-9156 on enclosed inquiry slip

Surface Evaluation

Brush Development Co.—8-page illustrated folder "Surface Evaluation by Faxfilm" describes applications and equipment for process which employs plastic replica to show roughness, wear, grain or other surface conditions or almost any shape of wide variety of materials.

For more details circle NED-9157 on enclosed inquiry slip

Rotary Machine Table

Troyke Mfg. Co.—8-page illustrated catalog 17 presents specifications and descriptions of worm-wheel operated, station indexing, ball bearing and cam-locking types of rotary tables. Attachments available and application data are included for all three models.

For more details circle NED-9158 on enclosed inquiry slip

Punch & Die Setting

Cerro de Pasco Corp.—Cerromatrix method of punch and die setting is described in 20-page manual A-15. Photographs and drawings supplement practical information regarding application of this method of making various types of dies.

For more details circle NED-9159 on enclosed inquiry slip

Electric Hand Dryers

Chicago Hardware Foundry Co.—4-page illustrated folder outlines features, advantages and uses for Sani-Dri hand and face dryer. Fast drying unit is instant starting, has porcelain enamel finish and sealed ball bearing motor directly connected to fan.

For more details circle NED-9160 on enclosed inquiry slip

Construction With Metal Framing

Unistrut Products Co.—How to frame, hang, mount and support many kinds of mechanical and electrical equipment with Unistrut all-purpose metal framing is covered in 78-page illustrated catalog 700. Detailed data on product and applications and how to order information is included.

For more details circle NED-9161 on enclosed inquiry slip

Tubular Parts Facilities

Tube Bends Inc.—Facilities and production capacities of company which specializes in design and production of tubular parts for aircraft and allied industries are described and illustrated in 8-page illustrated brochure. Operations performed and equipment available are listed.

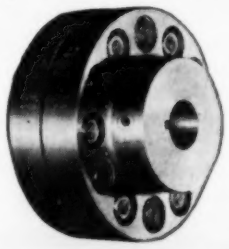
For more details circle NED-9162 on enclosed inquiry slip

Finishing Problem Solutions

Behr-Manning Corp.—"Blueprints for Faster, Better Production" is title of packet containing case study discussions of individual finishing problems. Each of six case studies is illustrated. Packet expands into wall chart.

For more details circle NED-9163 on enclosed inquiry slip

AJAX KNOWS COUPLINGS



● Ajax rubber-bushed Flexible Couplings have been recognized as the standard for 30 years.

They provide positive resilient drive. Available with rubber or Neoprene bushings to suit conditions. Wide range of sizes in standard, bolt-on, brake drum and other types, with flanges made of ferrous and non-ferrous metals.

Write for Bulletin 48.

AJAX FLEXIBLE COUPLING CO. INC.
WESTFIELD, N. Y.

For more details circle NED-9164 on enclosed inquiry slip

Industrial MOTO-TROLLEY

MAY BE ATTACHED TO YOUR STANDARD ELECTRIC HOIST . . .

ADJUSTABLE TO ACCOMMODATE WIDE VARIETY OF BEAM SIZES

● Crown-tread machine steel wheels with hardened drivers.
● Each wheel equipped with double-row precision ball bearings and removable-head axle with Alemite grease fittings.
● Powered by a crane-duty high-torque totally enclosed motor of 30 minute 55 degree rating.
● Magnetic contact panel has transformer to reduce voltage in single speed push button control circuit.
● 4-button control station operates single speed trolley and hoist motions.

Write for Literature

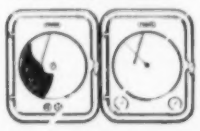
Industrial CRANES

INDUSTRIAL EQUIPMENT CO.
327 NORTH ADA STREET CHICAGO 7, ILLINOIS
Representatives in Principal Cities.

For more details circle NED-9165 on enclosed inquiry slip

POWERS

John Morrell & Co. Hams are famous for their fine flavor. Their modern air conditioned smoke houses shown above are POWERS controlled.



POWERS Time Cycle Recording Regulator

Air Conditioning Control Helps produce more UNIFORM Quality Products

High quality standards are rigidly maintained in the above smoke houses. Accurate regulation of temperature, humidity and smoke penetration is assured by POWERS pneumatic instruments controlling diaphragm valves, dampers and static pressure regulators.

Next time you want better temperature and humidity control for any process, heating or air conditioning, contact our nearest office. There's no obligation. (a58)

THE POWERS REGULATOR CO.
3437 Oakton St., Skokie, Ill.

60 Years of Temperature and Humidity Control • Offices in Over 50 Cities

For more details circle NED-9166 on enclosed inquiry slip

PRESTO LIGHTER SAYS:

". . . and our finishing costs have come tumbling down."

TUMB-L-MATIC helped Presto Lighter . . .
TUMB-L-MATIC can help you

Presto Lighter Co., was unfamiliar with and skeptical about cutting finishing costs with Tumb-L-Matic methods. They asked to be shown. Tumb-L-Matic engineers analyzed a sample lighter and then recommended an individualized low-cost Tumb-L-Matic Process. Result . . . "finishing costs have come tumbling down."

Tumb-L-Matic is a proved process which scientifically combines equipment, compounds, supplies and techniques to produce revolutionary developments in defining, cutting, smoothing and polishing metal products regardless of size or shape.

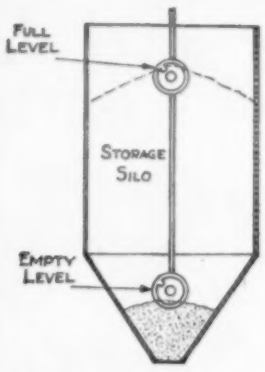
TRY IT BEFORE YOU BUY IT

Let our engineers analyze a sample (or detailed description) of your product, recommend an individualized, low-cost TUMB-L-MATIC PROCESS. Complete production data lets you figure finishing costs before you invest a cent. Send for Bulletin.

TUMB-L-MATIC, INC.
FORMERLY LUPOMATIC INDUSTRIES
7618 4510 BULLARD AVENUE • NEW YORK 70, N. Y.

For more details circle NED-9167 on enclosed inquiry slip

No Spillage
No Shortage
of Materials
in
Bins, Hoppers,
etc.
with



SYNTRON

HOPPER LEVEL SWITCHES

—automatically maintaining constant full and empty levels of materials—from fine to coarse—in bins and hoppers.
They will start and stop feeders filling hoppers—or ring alarm bells—or turn on lights—from material pressure, or the lack of it.

SYNTRON CO.
405 Lexington Ave. Homer City, Pa.

Write for catalog data

For more details circle NED-9168 on enclosed inquiry slip

just SAW that's all!
WITH THE
KETT
PANEL CUTTING SAW

• SAVE TIME---SAVE MONEY
• NO DRILLING---NO FILING---NO DEBURRING

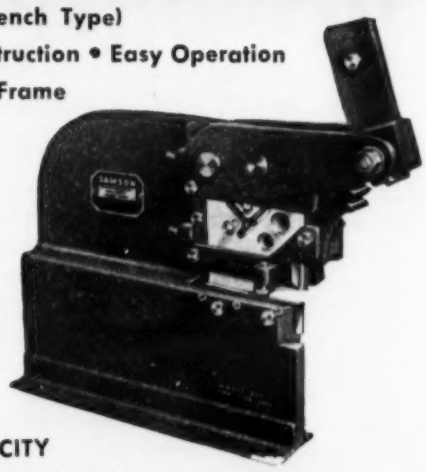
Just "plunge" right in and cut . . . everything from cardboard to steel. Follow curves or contours . . . zip through the toughest cutting jobs quicker and easier. Typical capacities: 12 ga. steel, 3/16 in. aluminum, 1/4 in. masonite, plywood, Amor Ply, and plastics. Interchangeable heads permit capacities up to 1/2 in. in soft rigid materials. A variety of blades for hard tempered or soft aluminum, copper, brass, lead, cast iron, etc., are available. Your present electric or pneumatic drill motor may be used for the power unit. Write for Catalog E-11 showing time-saving KETT tools.

The KETT TOOL COMPANY
5 East Third St., Cincinnati 2, Ohio

For more details circle NED-9169 on enclosed inquiry slip

SAMSON PLATE, ANGLE and BAR SHEAR

(Bench Type)
• All Steel Construction • Easy Operation
• Unbreakable Frame



NEW
No. 5RP7
$207.00
f.o.b. New York
(subject to change)
IMMEDIATE SHIPMENT

CAPACITY

Sheets and Plate	1/4"
Flats	3/8" x 3"
Rounds	5/8"
Squares	1/2"
Angles and Tees	2" x 2" x 3/16"

Catalogue of Metal Working Equipment furnished on request.

JULIUS BLUM & CO., Inc.
Established 1910
532 West 22nd St., New York 11 • WAtkins 9-7042

For more details circle NED-9170 on enclosed inquiry slip

New Processes & Materials

Controls, Meters, Relays

Assembly Products, Inc.—Technical data describing Simplytrol contact meter-relays, controls, pyrometers and API panel meters and relays can be found in 36-page illustrated catalog No. 1-A. Also included are circuit diagrams, installation and operating instructions and size, range and price data.

For more details circle NED-9171 on enclosed inquiry slip

Boiler Safety Devices

McDonnell & Miller, Inc.—Facts and specifications for liquid level controls for special applications, float controls, electrical and flow switches are contained in 20-page illustrated supplemental catalog. All products not covered by condensed catalog are described in catalog form No. SC-1.

For more details circle NED-9172 on enclosed inquiry slip

Liquid Chilling Units

Acme Industries, Inc.—Liquid chilling units with fixed and removable type tube bundles for cooling water, oil, alcohols and other liquids are subject of illustrated 2-page bulletin series 640. Information on specifications, selection procedure, heat transfer data and dimensions is included.

For more details circle NED-9173 on enclosed inquiry slip

Electrostatic Spray Painting

Ransburg Electro-Coating Corp.—With an efficiency of 99 per cent, No. 2 spray painting process makes use of electrostatic atomization to deposit even layer of enamel, lacquer or varnish on metal articles with no overspray. Process and equipment, along with features, advantages and several case histories are included in 16-page illustrated catalog on No. 2 process.

For more details circle NED-9174 on enclosed inquiry slip

Cork Characteristics & Uses

Dodge Cork Co.—Characteristics and uses for cork compositions and natural cork are described in 4-page illustrated bulletin. Tables giving physical properties of both types, sheet sizes and Dodge equivalents of government specifications for cork compositions and standard taper cork sizes are included.

For more details circle NED-9175 on enclosed inquiry slip

Conveyor Idlers & Machinery

Chain Belt Co.—Latest designs and developments in Rex belt conveyor idlers and machinery are contained in bulletin No. 51-81. Included is information on steel and gray cast iron idler rolls, general engineering information, return belt training (self-aligning) idler, troughed belt idlers, zipper bunker seals and belt conveyor trippers.

For more details circle NED-9176 on enclosed inquiry slip

Engineering Iron Selection

International Nickel Co.—Characteristics of nickel cast irons are presented in 28-page "Guide to Selection of Engineering Irons." Fifty illustrations show wide industrial usage in all sizes and shapes. Tables, charts and micrographs show how engineering properties of cast iron can be controlled to meet almost any reasonable combination of service requirements.

For more details circle NED-9177 on enclosed inquiry slip

SPO AIR VIBRATORS

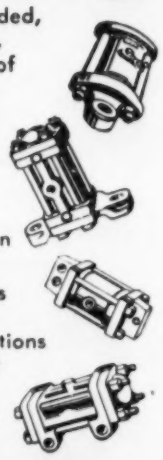
NEW BULLETIN DESCRIBES COMPLETE LINE

When powerful, low-cost vibration is needed, specify SPO air vibrators. These durable, versatile units provide for positive flow of powdered or granular materials, perform shake-out operations, and quickly settle dry or semi-liquid materials.

All SPO vibrators incorporate a special corrosion-proof bronze alloy cylinder liner that assures full-power starting, high-speed operation, low air consumption and a long trouble-free service life.

The SPO line of vibrators includes models to meet the requirements of diversified materials handling or production applications in which either continuous or intermittent vibration is needed.

Write for new BULLETIN 50 for complete data and specifications.



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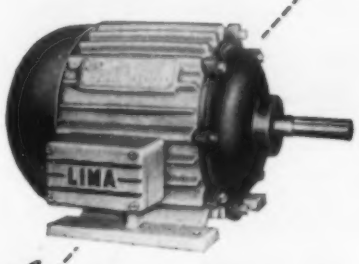
SPO INCORPORATED
6475 Grand Division Ave. • Cleveland 25, Ohio

For more details circle NED-9178 on enclosed inquiry slip

MOTORS as you like them



by.. LIMA

★ DRIPPROOF
★ TOTALLY ENCLOSED
★ EXPLOSION-PROOF
★ SHELL-TYPE

1/3 to 150 H. P.

Write today for Bulletin MB-1

LIMA
Representation in principal cities
THE LIMA ELECTRIC MOTOR COMPANY
333 Findlay Road • Lima, Ohio

For more details circle NED-9179 on enclosed inquiry slip

TRIPLOC Plugs and Receptacles

1, 2, 3, 4, 6, 8 pole Interchangeable and reversible contact units.

An Exceptionally Versatile Line in the Heavy Duty Field

An exceptionally versatile line, unequalled in the heavy duty field, with a virtually unlimited number of assembly combinations to meet the individual requirements of *any* portable electrical equipment.

Interchangeable contacts, 1 to 8 poles, can be assembled in standard plug shells and receptacle housings. The protected female contact unit can be assembled in either plug or receptacle for safety in the line side of the circuit. Fusible types and units with one pole grounded are also available.

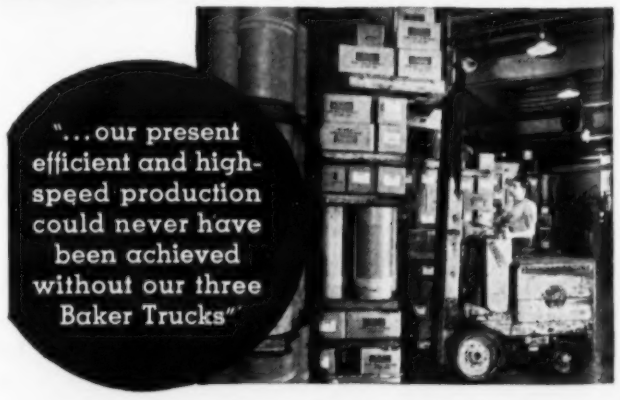
Automatic bayonet lock with either manual or combination manual and automatic release protects equipment and wiring. Wide range of pressed steel plug shells, receptacles, and cord connectors available in the complete Triploc line, including cast metal housings threaded for watertight gasket seal. Ratings up to 20 amperes, 250 volts DC, 460 AC. Consult your Pylet Catalog 1100, Bul. 1140 1, for complete listings.

CONDUIT FITTINGS • FLOODLIGHTS

SINCE 1897

THE PYLE-NATIONAL COMPANY
1334 North Kostner Avenue • Chicago 51, Illinois

For more details circle NED-9180 on enclosed inquiry slip



Here is what M. E. Horton, production manager, says about his

BAKER TRUCKS at The Dobeckmun Co.

"Of all the multiple problems that face a plant manager in his hectic career, I'd say that one of the least troublesome for me has been material handling. When you consider that in recent years our volume has increased about 400%, it's hard to believe that we haven't made a single addition to our handling labor staff . . . We feel that our present efficient and high-speed production could never have been achieved without our three Baker Trucks. In fact, we're placing an order now for a fourth . . ."

For the complete story of Baker Trucks at The Dobeckmun Company, write for Case Study Report No. 351

BAKER INDUSTRIAL TRUCK DIVISION of The Baker-Raulang Company
1245 West 80th Street, Cleveland 2, Ohio

Baker INDUSTRIAL TRUCKS

For more details circle NED-9181 on enclosed inquiry slip

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CATALOG TODAY!

60 pages of valuable information describing the line of Honeywell Automatic Controls

THE KIND of information you want, right at your finger tips . . . on pneumatic, electric and electronic non-indicating controls for temperature, pressure and humidity.

Catalog No. 8304 is complete and factual . . . send for your copy today.

Also ask to be put on the mailing list for *Industrial Control News* —a periodical publication devoted to new and unusual applications of automatic controls throughout industry. It is written by and for production and maintenance men.

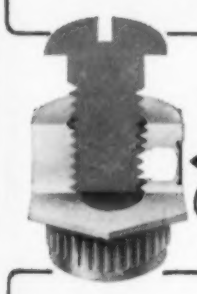
MINNEAPOLIS-HONEYWELL REGULATOR CO., *Industrial Division*, 4529 Wayne Ave., Philadelphia 44, Pa.

MINNEAPOLIS Honeywell

Brown Instruments

For more details circle NED-9182 on enclosed inquiry slip

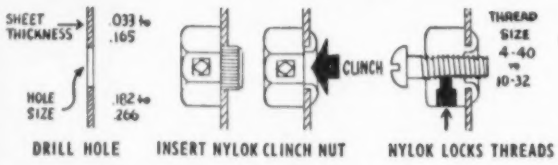
Immediate Delivery!



NYLOK SELF-LOCKING CLINCH NUTS

Nylon Insert Holds Tight

Meets Military Specifications



No fastening problem with NYLOK *Self-locking* Clinch Nuts. Simply press in nut, clinch, insert screw and run it down. Resilient nylon plug assures positive lock. Assemble either end. Use again with no loss of locking feature. Machine screw sizes #4 to #10 available in aluminum or steel. Write for specifications today.

The NYLOK Corporation

475 Fifth Avenue New York, N. Y.

Don't Design AROUND Your Fastening Problem—Design With NYLOK

For more details circle NED-9183 on enclosed inquiry slip

TEMCO®

1700 SERIES

ELECTRIC FURNACE

FOR HEAT-TREATING TOOLS, DIES, PARTS

A husky bench-type unit for production heat-treating of carbon and high chrome steel parts and tools. Welded steel body, 6" dual insulation. Has exclusive TEMCO "Double Door" that lets you open and close bottom half, or both sections, at will. Designed for continuous operation from 350° to 1650° F., intermittent to 1900° F. 220-230 V. operation. Two chamber sizes as shown below. Available without controls, or with TEMCOMETER stepless input controller and indicating pyrometer, or with Model 292 electronic controlling pyrometer.

MODEL	CHAMBER W" H" D"	FURNACE ONLY	FURNACE AND TEMCOMETER	FURNACE AND 292 CONTROLLER
1730	9½x8½x13½	$235.00	$297.50	$450.00
1740	9½x8½x18	$285.00	$347.50	$500.00

Write for new handy Reference File and dealer's name.

THERMO ELECTRIC MANUFACTURING CO.

484 Huff St., Dubuque, Iowa.

For more details circle NED-9184 on enclosed inquiry slip

New Literature—Continued

Hammer Mills

Williams Patent Crusher & Pulverizer Co.—How the hammer principle is applied to crushing, grinding and shredding operations is explained in 24-page illustrated engineering bulletin 672. Specifications and application data are given on Super-Slugger, Slugger, over-running, general purpose, reversible and other mills and their accessories.

For more details circle NED-9185 on enclosed inquiry slip

Nickel Alloy Pipe & Tubing

International Nickel Co.—Technical guidance for the fabrication and design of nickel and high nickel alloy pipe and tubing are offered in 27-page illustrated bulletin T-17. Included are tables on mechanical and physical properties, ASME Code requirements, recommended welding practices and other information.

For more details circle NED-9186 on enclosed inquiry slip

Manufacturing Facilities

Neon Products, Inc.—Plant layout, machine tools, personnel and shipping facilities of this manufacturer which are offered for subcontract work are described in 12-page illustrated brochure "Ready for Service." During World War II plant produced cartridge cases, Navy buoys and wiring harnesses.

For more details circle NED-9187 on enclosed inquiry slip

Ammunition Heat Treatment

Surface Combustion Corp.—Fuel-fired batch and continuous furnaces used in the production of small caliber ammunition are summarized and shown in 4-page illustrated bulletin SC-153. Covered step-by-step are processes required for steel projectiles, steel and brass cartridge cases, and cartridge belt clips and links.

For more details circle NED-9188 on enclosed inquiry slip

Tank Accessories

Vapor Recovery Systems Co.—32-page illustrated bulletin CP2001 presents data on extensive line of tank equipment, gas control and safety devices for the safe handling and conservation of combustible or toxic liquids and gases in the petroleum, chemical, marine, food processing, paint and varnish, and other industries.

For more details circle NED-9189 on enclosed inquiry slip

Barrel Finishing

Norton Co.—"Barrel Finishing with Alundum Tumbling Abrasive" is title of 56-page illustrated manual which deals with all phases of this subject. Such subjects as abrasive grit sizes, barrel finishing factors, equipment, cleaners, rust preventives, procedures, abrasive recovery and processing of samples are covered.

For more details circle NED-9190 on enclosed inquiry slip

Fuel Oil

"Fuel Oil Manual" is 160-page illustrated text written by P. F. Schmidt, chief chemist of the Allied Oil Co. Complete data are presented on properties of fuel oil, diagnosing and correcting fuel oil troubles, and selection, handling and burning of fuel oil in heating, power generation and industrial processes. Price is $3.50. Published by Industrial Press, 148 Lafayette St., New York 13, N. Y.

For more details circle NED-9191 on enclosed inquiry slip

FABRICS & TAPES For ALL INDUSTRY

FLIGHTEX FABRIC FABRICS

• COTTON
• VINYON
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• NYLON
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If you use special industrial fabrics and mechanical tapes, you'll find Flightex a dependable source of supply. Our staff of engineers is at your service to help solve your fabric and tape problems.

Write for Complete Information

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KICK-OFF WITH U.M.H!

Flexibility and Stamina Always Win!

The Universal Metal Hose team makes the goal every time in the conveyance of solids, liquids and gases at high and low temperatures and pressures.

This team, like any winning combination, has been developed to meet all requirements through training and experience.

Every member of the Universal Metal Hose team is designed to do a specific job for you. There's . . .

- Braided Seamless Corrugated
- Interlocked Asbestos Packed High Pressure
- Interlocked Low Pressure — Packed and unpacked
- Square Locked Conduit and special types

in a wide range of metals and sizes.

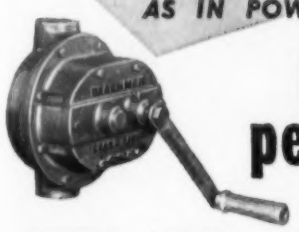
Universal Catalog U-101 offers you descriptive data on various types and applications of metal hose. Send for your copy today — and send along your specifications for recommendations without obligation.

UNIVERSAL METAL HOSE CO.

2155 S. Kedzie Ave. Chicago 23, Ill.

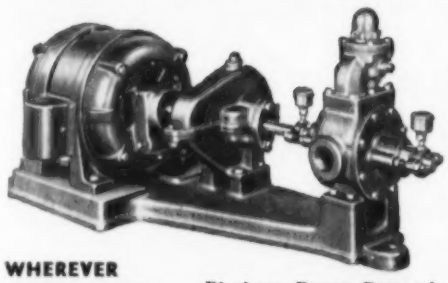
For more details circle NED-9193 on enclosed inquiry slip

IN HAND PUMPS AS IN POWER PUMPS . . .



BLACKMER performance

SPEEDS LIQUID MATERIALS HANDLING



for POSITIVE CONTROL OF MOST LIQUIDS FROM GASOLINE TO MOLASSES

WHEREVER LIQUIDS ARE HANDLED

Blackmer Pumps enjoy preference based on performance in all types of industrial and processing plants. Learn why plant engineers prefer Blackmer.

Blackmer Rotary Pumps from 5 to 1500 GPM capacities . . . hand or power-operated . . . provide positive displacement and high suction lift with volatile or viscous liquids.

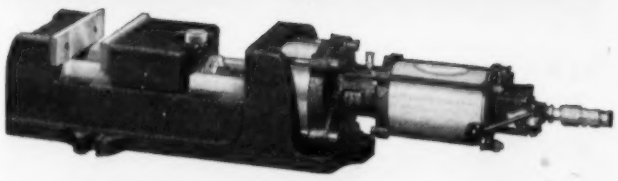
Get "FACTS" about Rotary Pumps

Write for "FACTS." Latest designs, operating and service features.

BLACKMER PUMP COMPANY
GRAND RAPIDS, MICHIGAN

For more details circle NED-9194 on enclosed inquiry slip

NEW AIR-HYDRAULIC MILLING MACHINE VISE Develops 15,000 LBS. PRESSURE



THE Bellows Air-Hydraulic Vise develops a clamping pressure of 150 times operating air line pressure. Jaw width — six inches. Jaw opening adjustable up to 5".

The Air-Hydraulic Vise is complete with either a built-in mechanically operated valve for hand operation or for mechanical synchronization to machine movement, or with the built-in Bellows low voltage solenoid operated valve for electrical operation. One flexible hose only air connection required.

Write for Bulletin 761, Dept. NED 1151-1

925

The Bellows Co.
AKRON 9, OHIO

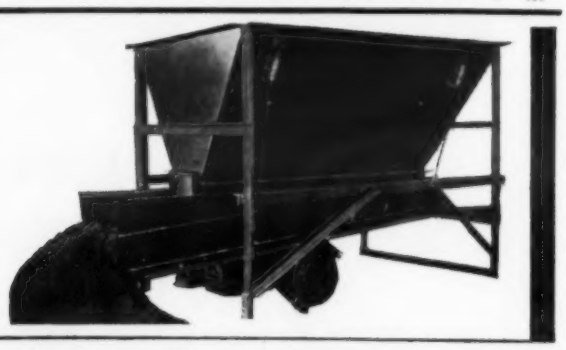
For more details circle NED-9195 on enclosed inquiry slip

APPROVED BY THE AIR FORCE FOR *Dependable Control*

The Guardian Series 335 D. C. Relay, illustrated above, is but *one of a complete line* of Guardian Relays designed to permit more control in less space... more room for armament, power and personnel. Sensational Guardian developments include the famous "Guard-A-Seal" units specifically designed for aircraft and portable equipment, *sealed in aluminum.* They incorporate heavier frames, larger contacts, higher capacities, yet qualify under all AN weight requirements because the weight is in the relay—not the can!

GUARDIAN ELECTRIC
1626-M W. WALNUT STREET CHICAGO 12, ILLINOIS
A COMPLETE LINE OF RELAYS SERVING AMERICAN INDUSTRY

For more details circle **NED-9198** on enclosed inquiry slip



If you use bin-stored materials you can handle them better with a Simplicity Os-A-Veyor type bin feeder

If you move anything that can be stored in a bin, chances are a Simplicity Os-A-Veyor type bin feeder will cut handling costs and speed up your operations. Simplicity Bin Feeders practically eliminate bridging and stoppage because they feed from the full length of the bin—materials will flow as you need them. Simplicity bin feeders are ideal, too, for storing and moving materials that are improved by tempering. Simplified power and operating mechanism keeps maintenance costs low, makes servicing easy. Write us today for complete information.

Simplicity ENGINEERING CO., DURAND, MICH. 101

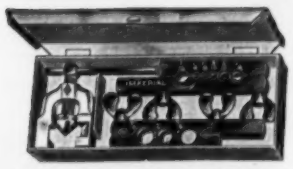
For more details circle **NED-9199** on enclosed inquiry slip

WE'LL SEND YOU THIS WHOLESALE CATALOG **FREE!**

60% SAVINGS ON SOME ITEMS

OVER **9,000 ITEMS** including

ELECTRIC MOTOR PARTS
REFRIGERANTS & FITTINGS
DEEP FREEZER SUPPLIES
DEHYDRATORS
COPPER TUBING
VALVES
CONTROLS
HIGH SIDES
GAUGES
TOOLS



Wide Range FLARING Tool

Flares 9 different sizes. One bar flares 1/8", 3/16", 1/4", 5/16", 3/8" and 7/16" OD sizes and the second bar flares 1/2", 5/8" and 3/4". Yoke has "slip on" feature with the inside edges notched to hold in place. Self centering No. 13564B. Complete Wide Range Flaring Tool for 9 different sizes, in metal case.

WRITE TODAY TO

THE HARRY ALTER CO.
1726 S. MICHIGAN AVE., CHICAGO 16
132 LAFAYETTE ST., NEW YORK 13

For more details circle **NED-9200** on enclosed inquiry slip

New Literature—Continued

Drill Jig Bushings

Ace Drill Bushing Co.—This 8-page reference handbook not only serves as a catalog for Ace drill bushings, but provides cross reference to 3023 symbols used by other bushing manufacturers. Tables compare these symbols to actual ASA standard sizes and specifications used by Ace.

For more details circle **NED-9201** on enclosed inquiry slip

Nylon Balls

Ace Plastic Co., Industrial Div.—Information on nylon balls for valves, valve components, specialized antifriction bearings, mechanical checks and other applications is contained in 2-page bulletin No. NP-101. Balls are made from DuPont nylon FM-10001 to plus-minus tolerance of 0.001-in. on diameter and sphericity.

For more details circle **NED-9202** on enclosed inquiry slip

Tackle Blocks

Upson-Walton Co.—Catalog 51-B on line of tackle blocks is divided into five sections: how to order, policy service, design features, mechanics and size, service and design data. The 52-page illustrated catalog contains complete specifications and provides data on construction material and block fabrication.

For more details circle **NED-9203** on enclosed inquiry slip

Manufacturing & Finishing Facilities

Electro Chemical Engraving Co.—6-page folder illustrates and describes manufacturing, finishing and assembly facilities for difficult types of metal products. Company, with 1000 workers and diversified facilities, is in position to handle wide range of civilian and military contracts.

For more details circle **NED-9204** on enclosed inquiry slip

Universal & Special Purpose Scales

Exact Weight Scale Co.—Six illustrated data sheets cover following types of scales: anodized and corrosion resistant speed scale, wide tower production and checking scale, special laboratory moment balance scale, 300-lb capacity platform scale, 500-lb capacity portable scale with tell-tale indicator and automatic fan dial scales.

For more details circle **NED-9205** on enclosed inquiry slip

Tension Indicator

General Electric Co.—Operation and applications of the G-E tensiometer for continuous tension indication of cold-rolled strip in steel, brass and aluminum mills are explained in 8-page illustrated bulletin GEA-5512.

For more details circle **NED-9206** on enclosed inquiry slip

Dow of Midland

Foreword to "Herbert H. Dow, Pioneer in Creative Chemistry" states that "this is an account, in nontechnical terms, of one man's share in the founding of a company and, in a way, of an industry." The man is Herbert H. Dow and company is Dow Chemical Co. of Midland, Mich. The 168-page illustrated book tells of the many trials which went into establishing company which is now making over 800 carloads of 150 different chemicals per month. Price is $3.50. Published by Appleton-Century-Crofts, Inc., 35 W. 32nd St., New York 1, N. Y.

For more details circle **NED-9207** on enclosed inquiry slip

New! complete catalog of modern, industrial hot-water heating equipment

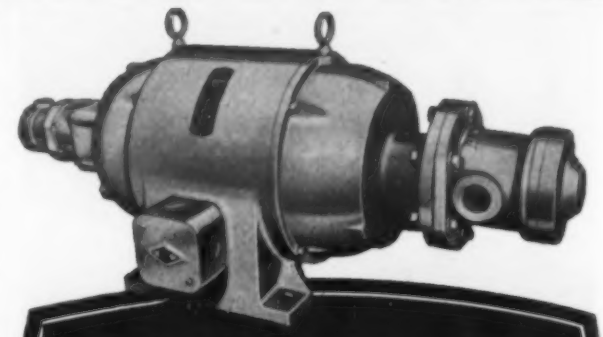
Here's up-to-the-minute help for your hot water problems!

The new 12-page *GENERAL* Catalog No. 60 gives you detailed information on the entire *GENERAL* line—instantaneous water heaters, converters, coil heated tanks, and other equipment. Easy-to-read diagrams, tables and charts, and other installation data help you make the most efficient selection.

Write today for your copy of the *GENERAL* Catalog No. 60. General Fittings Co., Dept. I, 123 Georgia Ave., Providence 5, Rhode Island.

GENERAL
TANKLESS AND INDIRECT WATER HEATERS AND HEATING SPECIALTIES

For more details circle **NED-9208** on enclosed inquiry slip



NEW HYDRAULIC PUMP MOTOR features standardized system for DIRECT ENDBELL MOUNTING

This new Reuland Hydraulic Pump Motor is *factory adapted* to the direct, endbell mounting of *all makes* of hydraulic pumps.

AUTOMATIC PRECISION ALIGNMENT — All motors are supplied with factory machined endbell flanges, pre-engineered to fit the registers on the pump mounting flange.

LOWER INSTALLATION COSTS — (1) only one unit to mount. (2) No time wasted in adjusting to proper alignment. (3) Fabrication of pump mounting platform is eliminated.

LOWER OPERATING COSTS — Pump life is almost doubled when alignment is perfect.

VERSATILE COMBINATIONS — Supplied with pump flange mounts on one or both endbells.

Write for new Engineering Folder No. 2000-11

REULAND ELECTRIC COMPANY
Alhambra, California • Representatives in all principal cities

For more details circle **NED-9209** on enclosed inquiry slip

CONTROL POWER BETTER

ROCKFORD CLUTCHES

For more details circle **NED-9210** on enclosed inquiry slip

MERCOID AUTOMATIC CONTROLS

THEY ARE USED FOR THE CONTROL OF TEMPERATURE, PRESSURE, LIQUID LEVEL AND MECHANICAL OPERATIONS

THE MERCURY SWITCH IS A FEATURE IN MERCOID CONTROLS. THE REASON FOR THE MERCURY SWITCH IS THE ADDED SAFETY-BETTER PERFORMANCE AND LONGER CONTROL LIFE-ALL OF WHICH ARE IMPORTANT WHEREVER CONTROLS ARE REQUIRED

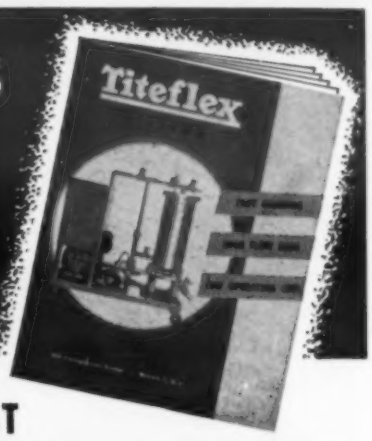
WHY CONSIDER LESS WHEN YOU CAN GET SO MUCH MORE

WRITE FOR COMPLETE CATALOG

THE MERCOID CORPORATION 4201 BELMONT AVE., CHICAGO 41, ILL.

For more details circle **NED-9211** on enclosed inquiry slip

HERE'S THE FULL STORY



of LOW COST HIGH EFFICIENCY filtration with Titeflex

Regardless of what you filter you'll find this booklet of interest. It contains full details of how Titeflex filters can reduce your filtering costs by (1) saving time and (2) saving materials. Shows entire cycle of operation graphically and lists sizes and capacities of various models. If you filter *anything* it will pay you to get this information.

SEND FOR YOUR FREE COPY TODAY

TITEFLEX, INC.
507 Frelinghuysen Avenue, Newark 5, N. J.

For more details circle NED-9212 on enclosed inquiry slip

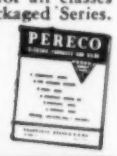
PERENY EQUIPMENT COLUMBUS OHIO

PERECO *Electric* FURNACES and KILNS

Popular Packaged LB Series

Ready to use, with all necessary equipment and instruments built in. Space-saving, simple to install, and easy to operate, the fully self-contained Pereco LB Kilns offer extremely flexible firing cycle and accurate temperature control for production, pilot plants, research, etc.

Typical of the series, LB-74 kiln illustrated, the smallest available size, has 9" cube working chamber. Can be fired from drying temperatures up to 2700° F. within three hours, or more normal slower cycles. Maximum 3000° F. for "flash" firings. Uniformly heated by silicon carbide elements above and below the chamber. Easily accessible "built-in" controls and instruments. Size 24¼" deep, 29¼" wide, 64" high (other larger models). Power: 230-v., 60-cyc., 1-ph AC, with variable input control 1.8 to 9 kw. (3-ph also available). Models of other specifications and for all classes of work are available in this same self-contained Packaged Series. Tell us of your needs, or—

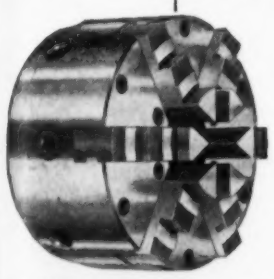


Send for free get-acquainted folder introducing the various types of Pereco Kilns and Furnaces.

PERENY EQUIPMENT CO.
Dept. G, 893 Chambers Rd., Columbus 12, Ohio

For more details circle NED-9213 on enclosed inquiry slip

Buck AJUST-TRU CHUCKS



.0005 PRECISION

In 1 MINUTE!

NOTHING LIKE IT!

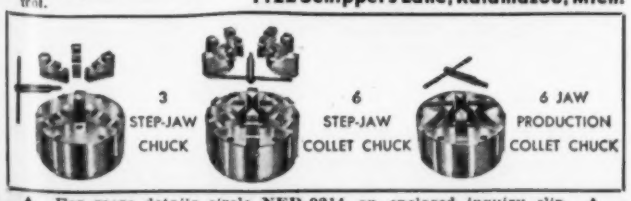
This is the first and only successful dual control chuck. Its operation is easy to understand and use. One pinion (see center of chuck body above) moves jaws in or out to grip work—just like any scroll chuck. 4 opposed screws (only two can be seen in photo) work on the chuck adapter to bring work to dead center. Even dubs have centered work within .0005 in 3 minutes! Once set dead true, hundreds of duplicate parts can be machined without changing adjustment—by simply using the scroll control.

Fastest chuck in the world! Saves fooling around adjusting the grip of four jaws . . . cellophane shims . . . "springing". Keeps the same .0005 precision chucking duplicate parts *with scroll chuck speed.*

6" 6-jaw Buck *handles the work of 93 collets*—yet it's priced in line with ordinary chucks!

Those are just some of the features of this new kind of chuck. They are unbelievable—but TRUE! Send for literature—see for yourself.

BUCK TOOL COMPANY
1122 Schippers Lane, Kalamazoo, Mich.



For more details circle NED-9214 on enclosed inquiry slip

New Literature—Continued

Vibrating Screens

Link-Belt Co.—Model UP vibrating screens for dry screening of light and fine materials and model NRM liquid vibrating screens for high speed separation of solids from liquids are covered in 20-page illustrated book No. 2377. Both types are offered in wide range of sizes. Dimension tables, selection data, weights and horsepower requirements are included.

For more details circle NED-9215 on enclosed inquiry slip

Roller & Conveyor Chains

Whitney Chain Co.—Quick means of determining interchangeability of various makes of roller and conveyor chains is provided by catalog HD-51. Additional information aids in determining proper application of chain drives as power transmission or conveying medium.

For more details circle NED-9216 on enclosed inquiry slip

Movable Partition Colors

E. F. Hauserman Co.—Samples of 140 standard wall and trim colors for Hauserman movable wall partitions are contained in 17-page decorator's color selector. Each color has percentage figure expressing its actual light reflecting value on metal surfaces.

For more details circle NED-9217 on enclosed inquiry slip

Military Packaging

Mehl Mfg. Co.—36-page illustrated "Military Packaging Guide" outlines government packaging specifications which involve flexible protective barriers against weather, water, moisture, mildew, corrosion, etc. Information is included on Army, Navy and Air Force requirements.

For more details circle NED-9218 on enclosed inquiry slip

Scaffolding Short-Cuts

Universal Mfg. Corp.—Illustrated bulletin No. 130 describes short-cuts and tricks of unusual scaffolding applications. Installations using Ezebilt steel panel scaffolding are shown in racking down, shortening up, tying around corners and angling around curved surfaces.

For more details circle NED-9219 on enclosed inquiry slip

Miscellaneous Taps

DoALL Co.—Illustrations and specifications on hand, machine screw, nut, pulley, pipe, taper, hook and special taps are included in 16-page catalog No. 51-813. Nine pages of technical data and ordering information also are included.

For more details circle NED-9220 on enclosed inquiry slip

Industrial Truck Maintenance

Baker-Raulang Co., Baker Industrial Truck Div.—Containing 51 illustrations of steps to be taken in preventive maintenance and annual check-ups, 14-page manual relates how investment in industrial power trucks is protected and continuity of service is assured.

For more details circle NED-9221 on enclosed inquiry slip

Aluminum Casting Facilities

Aluminum Industries, Inc.—Facilities of company for making aluminum castings are outlined and illustrated in bulletin No. 20. Pattern shop, foundry, tool room, laboratory, inspection, machining and engineering departments are covered.

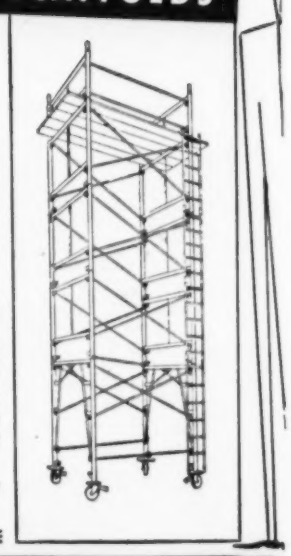
For more details circle NED-9222 on enclosed inquiry slip

Get Ready NOW...

Long Maintenance Grind Ahead!

ADVANCE SCAFFOLDS

- CONVENIENT
- SAFE
- ECONOMICAL



ADVANCE SCAFFOLDS are engineered to lighten your heavy maintenance burden in the years ahead. Advance's ready adaptability to all types of maintenance and repair work, and complete interchangeability of parts is a major convenience and economy.

Advance's patented self-contained locking system gives added strength and safety through live construction . . . gives speed and simplicity of erection and breakdown, saving time and money . . . gives longer use at less cost because there are no threads or outside welded parts to get jammed, bent or damaged under constant handling.

Investigate without delay this truly modern, economical scaffolding.

WRITE DEPT. N.E.D. FOR LITERATURE

ADVANCE SCAFFOLD DIVISION
BEAVER ART METAL CORPORATION
BOX 792 PHONE 26 ELLWOOD CITY, PA.

For more details circle NED-9223 on enclosed inquiry slip

DON'T WASTE MAN HOURS

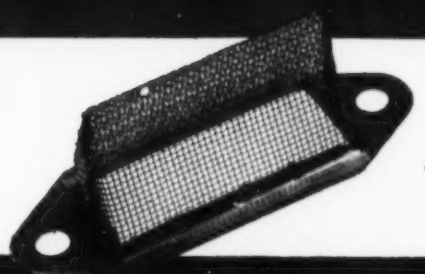
Get more productive hours by reducing lost time in handling materials. One man, with the aid of a "Canton" Portable Crane, can lift and transport up to 3 tons of material to any part of the plant! For more details on saving man-hours, write today for Bulletin 51.

The HILL ACME CO.
"CANTON" DIVISION 1201 W. 65TH ST., CLEVELAND 2, OHIO

For more details circle NED-9224 on enclosed inquiry slip

NEWARK Fabricated WIRE CLOTH PARTS

Available — a well-equipped plant with highly experienced fabricators.



Available — mesh cloth and space cloth made in our own plant.

All under one roof

Do you require parts made with one or more pieces of mesh cloth or space cloth — anything from 4 inch openings down to 325 mesh (105,625 holes/sq. in.)?

Our experienced fabricating service should be of value. We are in position to handle volume order business and, if desired, will be glad to help in designing the part requiring the metallic cloth. We know how to insert and fasten metallic cloth to get best results. We carry many standard sizes of wire cloth in stock. We have ample loom facilities to weave special cloths if necessary. We can handle any wire of any malleable metal.

This fabricated parts division of our business has grown by leaps and bounds. We have had many repeat orders. It could be due to the quality of wire cloth used and the care with which this cloth is assembled into the parts being fabricated.

NEWARK for ACCURACY

Ask for General Catalog "D".

Newark Wire Cloth COMPANY
351 VERONA AVENUE • NEWARK 4, NEW JERSEY

Philadelphia 3, Penna. 1311 Widener Bldg. | San Francisco, Calif. 3100 19th St. | Chicago, Ill. 30 N. Wacker Dr. | New Orleans, La. 530 Maritime Bldg. | Los Angeles, Calif. 1400 So. Alameda St. | Houston, Texas P. O. Box 1970

For more details circle NED-9225 on enclosed inquiry slip

Tiny parts for the DC-6 get THOROUGH check-up with FLASH-O-LENS

Small parts for the hydraulic system of the famous Douglas DC-6 are inspected for symmetry with FLASH-O-LENS — the handy device that *lights* the work and *magnifies* it.

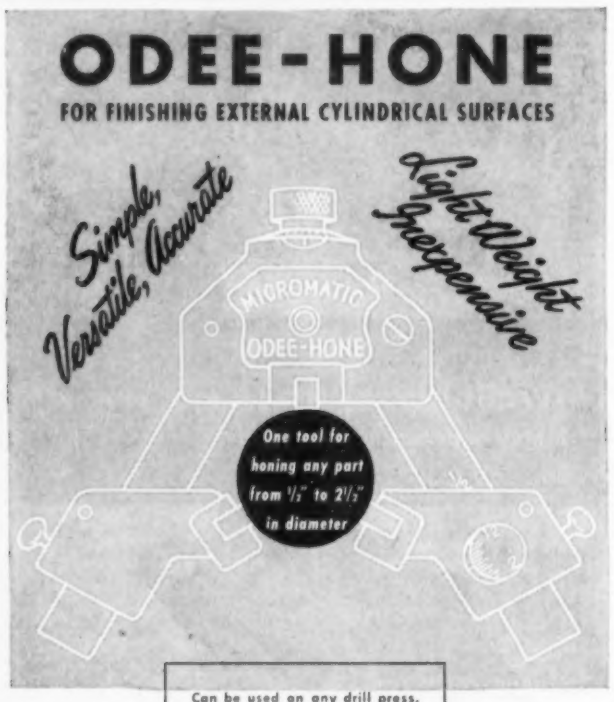
It will pay *you* to put FLASH-O-LENS to work on your inspection jobs. Built-in bulb throws light *only* on field of vision — *not* in worker's eyes. Accurately ground lens gives sharply detailed enlargement.

Write for free descriptive literature on battery-operated and plug-in types.

E. W. PIKE & COMPANY
492 NORTH AVE. ELIZABETH, N. J.

For more details circle NED-9226 on enclosed inquiry slip

ODEE-HONE
FOR FINISHING EXTERNAL CYLINDRICAL SURFACES



Can be used on any drill press, lathe or electric drill.

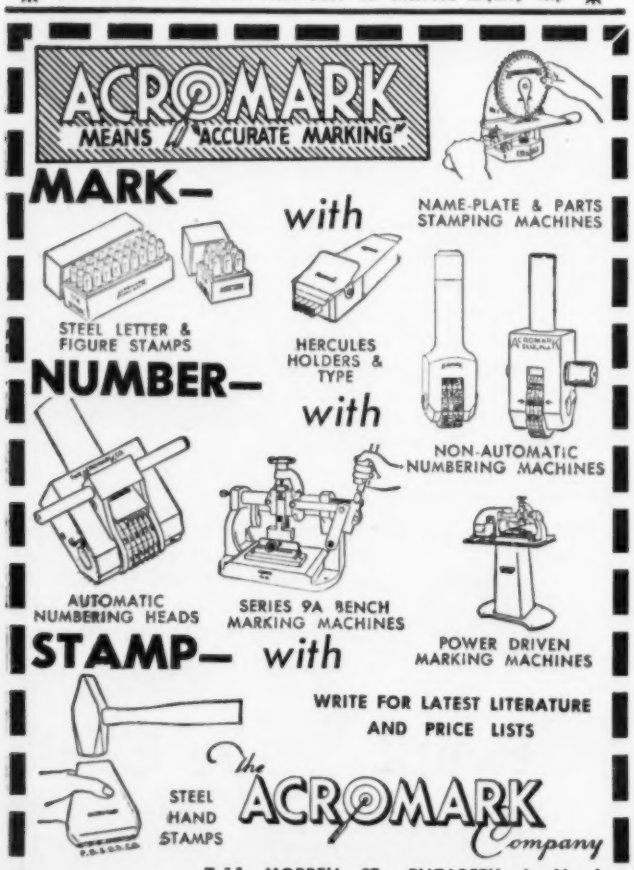
Generates round, straight surfaces with any desired surface finish.

For complete information write or call

MICROMATIC HONE CORPORATION
8100 SCHOOLCRAFT • • • DETROIT 4, MICHIGAN

For more details circle NED-9227 on enclosed inquiry slip

ACROMARK MEANS "ACCURATE MARKING"



WRITE FOR LATEST LITERATURE AND PRICE LISTS

The ACROMARK Company
7-11 MORRELL ST., ELIZABETH 4, N. J.

For more details circle NED-9228 on enclosed inquiry slip

New Literature—Continued

Hand Hydraulic Lift Trucks

Barrett-Cravens Co.—Two new hydraulic lift trucks for one-man handling of 2500, 4000 and 6000-lb pallet loads are detailed in 16-page illustrated bulletin 5142. Also described is Pallet Ox truck which lifts and travels electrically.

For more details circle NED-9229 on enclosed inquiry slip

Metallic Oxide Cores

Stackpole Carbon Co.—12-page illustrated engineering bulletin uses graphs to demonstrate the behavior of metallic oxide Ceramag cores under varying conditions of permeability, flux density, temperature and other magnetic properties. Cores are applicable in transformers, controls and other applications where high permeability for relatively low flux densities and medium frequencies is required.

For more details circle NED-9230 on enclosed inquiry slip

Abrasive Belt Machines

Porter-Cable Machine Co.—Wet and dry belt grinders, centerless belt grinders, contour grinding and polishing machines, backstand idlers, and bench and utility grinders are described in detail in 28-page illustrated catalog 400. Scope of use and operation of each machine is explained.

For more details circle NED-9231 on enclosed inquiry slip

Wire Cloth Strainers

Michigan Wire Cloth Co.—"Engineers Manual of Wire Cloth Strainer Design" is guide to type of weave, mesh, wire size and metal for wire cloth strainers. Second section covers flow rates, various practical shapes, fabrication procedures and construction of strainers. Services available from company are outlined.

For more details circle NED-9232 on enclosed inquiry slip

Saws & Pipe Tools

Capewell Mfg. Co.—Hand and power hack saw blades, metal and wood cutting band saws, band knives, Armstrong-Bridgeport pipe tools, pipe and bolt threading machines, hammers, flat ground stock, foundry nails and horse nails are described in detail in illustrated catalog and price list.

For more details circle NED-9233 on enclosed inquiry slip

Spring Design

Newcomb Spring Corp.—"66 Hints to Simplify Design and Reduce Spring Cost" is 8-page illustrated guide book. Subjects covered include purchasing, materials, finishes, gages, hydrogen embrittlement, compression springs, extension springs, torsion springs and specification numbers.

For more details circle NED-9234 on enclosed inquiry slip

End Mills

Putnam Tool Co.—Over 1000 standard types and sizes of end mills including the Postiv-Lok series for large boring mill, profiling and similar applications, the short flute series, keyway end mills and a continuous pilot counterbore are listed in 108-page catalog "Putnam High Speed Tools." Request for this leatherette bound catalog measuring 5½ x 8 in. should be made on company letterhead to Putnam Tool Co., 2981 Charlevoix, Detroit 7, Mich.

For more details circle NED-9235 on enclosed inquiry slip

EVEREDE 8 WAYS BETTER

OFFSET **BORING HEADS**
LICK PRECISION-BORING PROBLEMS!

On turret lathes as well as jig-boring and horizontal milling machines.

DEEP OR SHALLOW PRECISION-BORING with a minimum of spring or chatter. Adjustable feature eliminates need to stock various-length bars!

Modern precision-boring means EveredE Boring Heads in more and more of the nation's major plants. That's because EveredE Boring Heads provide so many proven features which increase production with less effort, time and cost.

THREE SIZES . . . provided with split type bushings . . . permit using straight type boring bars . . . afford adjustment in extended bar-lengths, giving greatest rigidity . . . while cutting with famed EveredE Triangular HSS or solid carbide tool bits.

FULL DETAILS WILL SOLVE YOUR BORING PROBLEMS—SEND FOR THEM TODAY!

EVEREDE Tool Co.
2000 North Parkside Avenue Chicago 39, Illinois

For more details circle NED-9236 on enclosed inquiry slip

Just because gravy goes swell over noodles, he shouldn't assume it's good on hair, too!

And just because one bearing is best lubricated by one particular grade of oil, you shouldn't assume that the same oil is best for *all* bearings on that machine. In many cases it isn't.

OIL CUPS permit you to lubricate each bearing with the oil best suited to that bearing—thus prolonging bearing life, reducing maintenance costs, cutting down-time, boosting production. And oil cups fortunately *cost very little.*

Gits oil cups have been the standard for industry for more than 40 years. Gits Bros. has the largest selection of oil cups available anywhere. Call on Gits Bros. for a prompt, efficient solution to your lubrication problems.

Write for free illustrated Catalog No. 60-A

GITS BROS. MFG. CO.
1833 S. Kilbourn Ave. • Chicago 23, Ill.

For more details circle NED-9237 on enclosed inquiry slip

THE LESLIE MARK
SELF-CLEANING STRAINERS

Complete protection for Reducing Valves, Pump Governors, Temperature Regulators, Turbines, Pumps, Traps, Valves and other equipment against dirt, rust and scale is provided at lower cost by LESLIE Self-Cleaning Strainers.

Protection from foreign matter increases the life of the equipment and prevents costly down-time. Self-Cleaning feature allows cleaning of screen without removal from strainer body or shutting off operating fluid.

Available in sizes (1¼"-10"), in cast iron, cast bronze, cast steel, carbon moly, chrome moly and stainless steel, with screwed, flanged or socket welding connections, to 1500 lbs. press., 1000°F.

Stocked and sold by Industrial Distributors.

ESTABLISHED 1900 **LESLIE CO.**

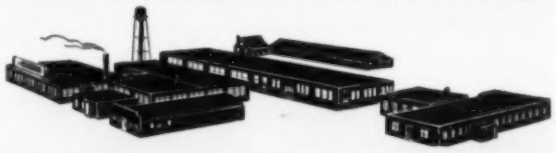
SEND FOR—Bulletin No. 465
227 Grant Avenue Lyndhurst, New Jersey

PRESSURE REDUCING VALVES • PRESSURE CONTROLLERS
FLOATLESS LEVEL CONTROLS • PUMP GOVERNORS
TEMPERATURE REGULATORS • SELF CLEANING STRAINERS
AIR HORNS • STEAM WHISTLES

For more details circle NED-9238 on enclosed inquiry slip

UNIVERSAL DRILL BUSHINGS establish new standards of high quality

Universal Drill Bushings, produced at the big, modern plant of the Universal Engineering Company, have been first in industry for more than 25 years. They are accurately machined with superhoned bores from the finest quality steel and carefully inspected to insure maximum efficiency and extremely long life. Write today for complete information.

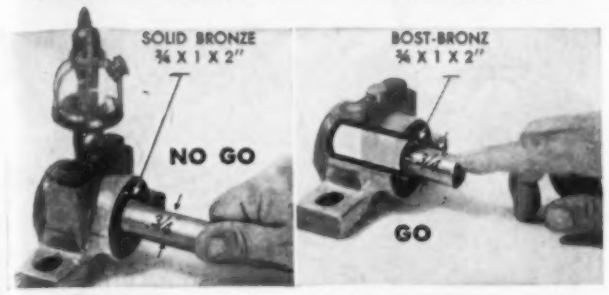


The modern home of finer production tools

UNIVERSAL ENGINEERING COMPANY
FRANKENMUTH 5, MICHIGAN 156-A

For more details circle NED-9239 on enclosed inquiry slip

$3.32 SOLID BRONZE vs. SAME SIZE $.90 BOST-BRONZ®



COST OF BEARING	$ .87	COST OF BEARING	$ .90
REAMING	.70	REAMING NOT NECESSARY	.00
GROOVING	1.40	GROOVING NOT NECESSARY	.00
DRILLING	.35	DRILLING NOT NECESSARY	.00
COST OF MACHINING	2.45	COST OF MACHINING	.00
NO GO	$3.32	GO	$.90

1. BOST-BRONZ requires .... NO REAMING NO GROOVING NO DRILLING
2. BOST-BRONZ gives better service and lasts longer, whether loads are heavy or light, static or shock.
3. BOST-BRONZ is cleaner — no oil drip or waste, no openings for grit, lint or dirt.

IN STOCK 589 SIZES Cylindrical Flanged BEARINGS • BARS • PLATE

Write for a FREE Sample!

BOSTON GEAR WORKS
69 HAYWARD ST., QUINCY 71, MASS.

For more details circle NED-9240 on enclosed inquiry slip

MONORAIL REDUCES *Maintenance Costs*

American MonoRail Overhead Handling Equipment serves one of the country's largest maintenance shops. Included in the department are: machine shop, electrical repair, metalizing room, welding, painting and sand blast room, pipe shop, and inside and outside storage.

Let an American MonoRail engineer show you how you can cut handling costs and save valuable floor space. Please write us.

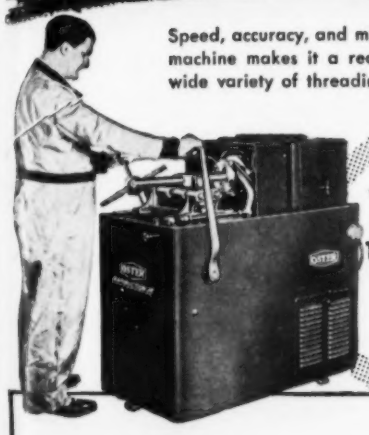
THE AMERICAN MONORAIL COMPANY
13116 Athens Avenue • Cleveland 7, Ohio

For more details circle NED-9241 on enclosed inquiry slip

Your Oster Distributor Offers You

FAST, Low Cost Bolt Threading

Speed, accuracy, and moderate price of this machine makes it a real cost-reducer on a wide variety of threading work.



OSTER "RAPIDUCTION JR." BOLT THREADING MACHINE
Standard Bolt Range ¼" to 1½"
Pipe or Nipple Range
No. 781-A: ⅛" to 1¼"
No. 782-A: ½" to 2"

Equipped with Semi-Automatic Revolving Die-Heads

Two models (No. 781-A and 782-A) are identical excepting the die-heads which have same bolt range but different range for pipe and nipples, as indicated above.

A wide variety of work including BENT rods or pipe can be threaded on these machines. Write for illustrated bulletin which includes tables of production estimates.

OSTER **THE OSTER MFG. COMPANY**
2066 E. 61st St., Cleveland 3, Ohio, U.S.A.

BUILDERS OF COST REDUCING THREADING MACHINES SINCE 1893

For more details circle NED-9242 on enclosed inquiry slip

New Literature—Continued

Gas Analysis Apparatus

Fisher Scientific Co.—60-page illustrated "Gas Analysis Manual" discusses theory of gas analysis and gives details on procedures involved in various methods. Latest equipment for gas analysis is described, together with data on maintenance and operation of equipment.

For more details circle NED-9243 on enclosed inquiry slip

Rubber Parts & Equipment

Automotive Rubber Co.—Company's plant facilities for producing Arco sheet rubber lined tanks, form-dipped rubber parts and molded and extruded products are illustrated and briefly described in 12-page brochure "Anything Can Be Covered With Rubber."

For more details circle NED-9244 on enclosed inquiry slip

Socket Screw Products

Holo-Krome Screw Corp.—Complete line of cold forged socket screw products plus detailed engineering data are featured in 28-page catalog No. 51. Covered are socket set screws, socket head cap screws, flat head socket cap screws, socket head stripper bolts, socket pipe plugs and button head socket cap screws as well as H-K dowel pins, socket screw keys and key sets.

For more details circle NED-9245 on enclosed inquiry slip

Precision Reamers

DoALL Co.—12-page brochure No. 51-814 offers illustrations, detailed technical data and price listings on chucking expansion, shell, taper pin and stub screw machine reamers. Diemakers' reamers letter and number size reamers and decimal size chucking reamers as well as taper, dowel pin and fractional reamers are also shown in selected sets.

For more details circle NED-9246 on enclosed inquiry slip

Metal Strapping & Accessories

Allegheny Steel Band Co.—Steelband strapping, seals, tensioners, sealers and accessories are pictured and described in 6-page folder. Products are used for banding all types of packages, bales, boxes, bundles and pallets.

For more details circle NED-9247 on enclosed inquiry slip

Portable Electric Tools

Stanley Works, Stanley Electric Tools Div.—Safety saws, electric planes, portable routers, tool sharpening grinders and electric drills are among many wood and metalworking portable electric tools described fully in 96-page catalog.

For more details circle NED-9248 on enclosed inquiry slip

Electronic Products

Concord Radio Corp.—1952 catalog No. 52 contains specifications and prices on electronic components and assemblies, sound systems, test equipment, electronic tubes, electrical parts and supplies, and tools.

For more details circle NED-9249 on enclosed inquiry slip

Steam Trap Selector

Yarnall-Waring Co.—18-page bulletin T-1750 presents brief application description and capacity tables pertinent to steam traps used in steam process, industrial space heating, steam generation and distribution, laundry, restaurant and hospital equipment.

For more details circle NED-9250 on enclosed inquiry slip

U-Bolts or Centered Eyes

rapidly duplicated with

di-acro HYDRA-POWER BENDER

An example of large radius forming.

At last — a PRODUCTION BENDER that "BENDS THEM ALL" —tubing—angle—channel—extrusions—moulding — strip stock — bus bars—and of course, all types of solid materials. U-Bolts and Eye-Bolts are just two examples of the shapes that can be rapidly produced in one operation with this hydraulic power bender.

The DI-ACRO HYDRA-POWER BENDER can be easily set up in your own plant for a great variety of forming operations, or it can be delivered completely tooled for speedy production of a specialized part. Investigate this universal machine before you buy any "single purpose" bender.

Send for
"DIE-LESS DUPLICATING" CATALOG
giving full information on all DI-ACRO Benders, Brakes, Shears, Rod Parters, Notchers, Punches—also our offer of free DI-ACRO Engineering Service.
DI-ACRO is pronounced "DIE-ACK-RO"

O'NEIL-IRWIN MFG. CO.
354 8th Avenue, Lake City, Minnesota

For more details circle NED-9251 on enclosed inquiry slip

AJUSTRITE TRADE MARK

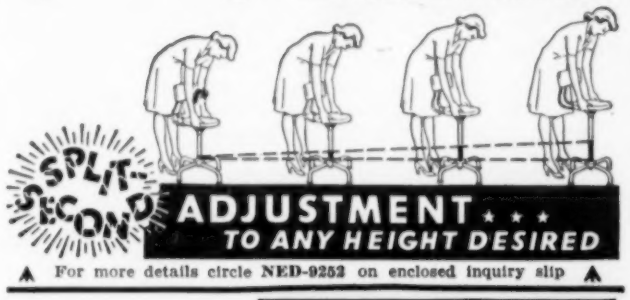
AUTOMATIC ADJUSTABLE CHAIRS

Ajustrite (formerly Kewaunee) adjustable chairs and stools are used extensively in Factories, Laboratories, Hospitals, Offices, Schools, Colleges, and Government Agencies. User adjusts to any desired height by merely lifting seat—no screws, bolts or tools.

Choice of 18 models. Height adjustment 15" to 20"; 24" to 35". Seats of plywood, hardwood, or molded FOAM RUBBER cushion. Self aligning back rests—horizontal and vertical adjustment.

Write for literature and free trial offer.

AJUSTO EQUIPMENT COMPANY
2144 Madison Ave. Toledo 2, Ohio



For more details circle NED-9252 on enclosed inquiry slip

ROTO FINISH

GIVES YOU 5 OUTSTANDING ADVANTAGES
for Deburring, Descaling and Finishing Operations

1. Eliminates tedious hand filing, scraping, polishing, deburring, etc. to save many man hours.
2. Provides absolute uniformity in quantity lots.
3. Maintains exacting tolerances on precision parts where no dimensional change is allowable.
4. Imparts a finish mechanically that was formerly considered possible only by hand methods.
5. Low initial cost — requires minimum maintenance. No exhaust systems required.

Send samples for free demonstration

Roto-Finish COMPANY
associated with The Sturgis Products Co.
3702 MILHAM RD., KALAMAZOO, MICHIGAN
ORIGINATORS OF THE ROTO-FINISH PROCESSES

For more details circle NED-9253 on enclosed inquiry slip

You're On The Target, Too,

WITH TMI QUALITY TUBING

It takes more than a "good bow, a straight arrow and an accurate eye" to hit the QUALITY mark. Tube Methods' marksmanship assures you the BEST in cold-drawn stainless steel tubing . . . bringing a new triple-capacity plant and a decade of specialized experience to the service of you and *your* quality product.

STAINLESS STEEL AND SPECIAL ALLOYS IN SMALL DIAMETERS —.050 to .625 O. D.

TUBE METHODS INC.
METALLURGISTS • ENGINEERS • MANUFACTURERS
BRIDGEPORT (Montgomery County), PA.

For more details circle NED-9254 on enclosed inquiry slip

Latest Design POWERFUL 31 TON BACK-GEARED *Diamond* PUNCH PRESS

STRAIN GAUGE ANALYZED FOR GREATEST FRAME STRENGTH

Strain-gauge analysis, applied for first time to Diamond punch presses, has resulted in more equal distribution of frame strength with maximum resistance to distortion. Cradle mounted, Diamond 31 Ton frame inclines to most convenient position. Other improvements include Micro-Finished surfaces on gibs, slides and bearings, assuring velvet-smooth ram travel with less friction and longer life. Diamond production tolerances are maintained so close that duplicate parts are interchangeable without hand fitting!

*AVAILABLE FOR FIRST TIME . . . A complete technical report on Diamond Strain-Gauge Analysis of Punch Presses and Operations. Every user of punch presses should obtain a copy! Sent free on request with circular featuring 9 - 14 - 30 and 31 Ton Diamond Punch Presses. Write today!

DIAMOND

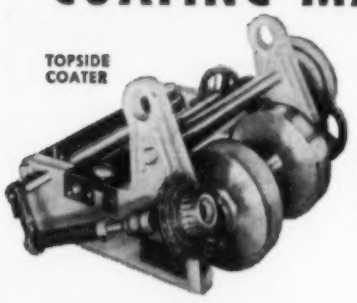
DIAMOND MACHINE TOOL CO.
DEPT D • 3429 E. OLYMPIC BLVD., LOS ANGELES 23, CALIF.
MANUFACTURERS OF THE DIAMOND LINE OF PRECISION MACHINE TOOLS AND ACCESSORIES

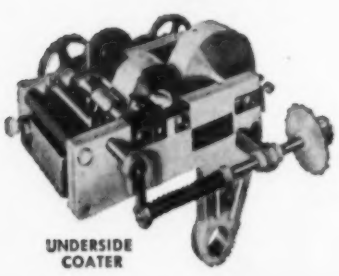
For more details circle NED-9255 on enclosed inquiry slip

POTDEVIN *multi-purpose*

COATING MACHINES *for* TOPSIDE or UNDERSIDE COATING

TOPSIDE COATER





UNDERSIDE COATER

For use as a self contained and self powered unit or for mounting on other equipment — for topside or underside solid or strip coating. Particularly suited for applying resins, varnish, adhesive, lacquer, etc., to webs or sheets of paper or other materials in widths up to 21 inches. Ductor roller adjustment controls amount of coating applied. Removable reservoir and coating rollers permit thorough quick cleaning.

Write for full particulars.

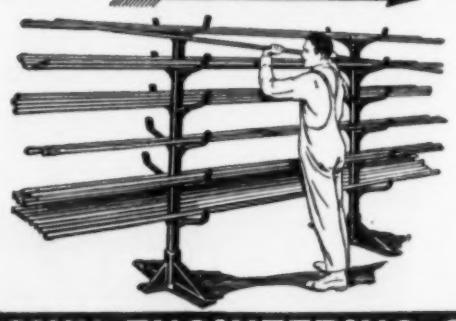
POTDEVIN MACHINE CO.
1273 38th STREET • BROOKLYN 18, N. Y.

For more details circle NED-9256 on enclosed inquiry slip

SPEEDS UP STOCK-ROOM SERVICE

The BROWN TIME-SAVING RACK saves the time previously lost end-hauling each bar of stock its entire length from the old-style, closed-side Rack, the Brown Rack requiring but a few inches of side movement. Each length, width and thickness of stock is displayed in goldfish visibility for instant selection. Workmen waiting for stock are served without waste of time, and returned to their production machines to turn out a maximum of output. Any time you require additional storage space, all you need do is to add more units. If you want to relocate it at any time, you can do so for it is unattached to the building. It is a simple, durable article made of metal in five styles. It can't burn, warp, sag or twist: depreciation is practically nil. SEND FOR BULLETIN No. 26-D DESCRIBING—

BROWN'S *QUICK-SERVE* RACKS



BROWN ENGINEERING CO.
129 N. THIRD ST. READING, PENNA.
RACKS • VISES • CLUTCHES • COUPLINGS

For more details circle NED-9257 on enclosed inquiry slip

New Literature—Continued

Mica Capacitors

Cornell-Dubilier Electric Corp.—Electrical, physical and application data including characteristics, dimensions and tolerances covering line of mica capacitors is offered in 60-page illustrated catalog No. 420-421. Five pages of technical data on selection, use and method of specifying capacitors are included.

For more details circle NED-9258 on enclosed inquiry slip

Metal Cleaning

Oakite Products, Inc.—"How To Clean Metals in Aircraft Production" is title of 48-page illustrated booklet which describes specialized materials, procedures and equipment for use in cleaning metals, preparing metals for finishing, and for cleaning and related processes involved in aircraft production.

For more details circle NED-9259 on enclosed inquiry slip

Centrifugal Blowers & Compressors

De Laval Steam Turbine Co.—Comprehensive data on multistage, single-stage end suction and single-stage double suction centrifugal blowers and compressors is presented in 52-page illustrated bulletin 0500. Capacities of machines range from 1000 to 150,000 cfm for pressures to 150 psi and above. Special units can be supplied for service at operating pressures to 1000 psig

For more details circle NED-9260 on enclosed inquiry slip

Bucket Conveyors

Hapman Conveyors, Inc.—Details of pivoted bucket carriers for moving wet or dry materials are given in 4-page illustrated bulletin HB-551. Conveyor consists of continuous series of buckets suspended between two endless chains, supporting framework and drive. Conveyor can be designed to follow combination of horizontal, vertical or inclined paths.

For more details circle NED-9261 on enclosed inquiry slip

Acidproof Construction

Chemsteel Construction Co.—8-page brochure presents illustrations and description of acid and alkaliproof tanks, chemical reactors, fume ducts, floors, trenches, sewers and baths it has engineered for various metal, chemical, textile, food and industrial plants. Tiles and cements used resist heat, thermal shock, mechanical abuse, abrasion and erosion.

For more details circle NED-9262 on enclosed inquiry slip

Vibration Reduction

American Felt Co.—A simplified method for selection of proper grade and weight of vibration mounting felt is described in 16-page illustrated booklet "How to Reduce Vibration." Typical machines mounted on felt include buffers, grinders, lathes, drill presses, looms, pickers, cards and hosiery machines.

For more details circle NED-9263 on enclosed inquiry slip

Duck & Rubber Packings

Raybestos-Manhattan, Inc., Packing Div.—Low pressure, cross expansion, hydraulic, hollow core, round rubber core and diagonal expansion types of duck and rubber packings are subject of 8-page illustrated bulletin. Service recommendations, lists of standard sizes and packaging specifications on all type packing are included.

For more details circle NED-9264 on enclosed inquiry slip

SAVE PRODUCTION TIME ... *drive* SOUTHCO BLIND RIVETS *faster than nails!*

No special tools needed. Nothing to finish off, no bucking, trimming or grinding. Just drive the pin and the job is done. Fast, tight, strong.

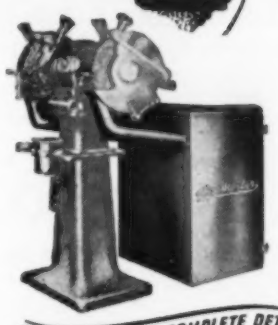
Investigate! For COMPLETE data, write SOUTHCO DIV., SOUTH CHESTER CORPORATION, 1413 Finance Bldg., Philadelphia 2, Pa.

SOUTHCO DRIVE RIVETS

PAT. PENDING RIVET & MFG.

For more details circle NED-9265 on enclosed inquiry slip

OUT OF THIS WORLD!



THE AIR MASTER keeps dust and grit out of your plant... instantly sucks them from the whirling wheels of your grinders and buffers. Dust and grit, tiny but destructive enemies of health and machinery, are completely eliminated right at the moment they fly off the wheels.

The AIR MASTER keeps the air clean. It provides healthful working conditions for your employees . . . keeps expensive machinery in working order by protecting delicate bearings and moving parts.

Install the AIR MASTER in your plant. It is fully self-contained . . . efficient, rugged, dependable. A size for every grinder and buffer.

WRITE TODAY FOR COMPLETE DETAILS

The Cincinnati — ELECTRIC DRILLS • GRINDERS BUFFERS • PORTABLE TOOLS AIR MASTER DUST COLLECTORS

THE CINCINNATI ELECTRICAL TOOL CO.
Division of THE R. K. LeBLOND MACHINE TOOL CO.

Dept. 51-LD Madison & Edwards Rds. Cincinnati 8, Ohio

For more details circle NED-9266 on enclosed inquiry slip

EVANS'

PRECISION *Springs*

EVANS' precision springs have been meeting and exceeding the specifications of industry for more than a hundred years. The cumulative skills of Evans' engineers and the *complete* production facilities at the Evans' factory provide a unique and world-famous source of springs for every application.

Send for specification sheet for easy ordering. • *Precision spring manufacturers since 1850.*

JOHN EVANS' SONS, INC.
506 NORTH 13th STREET
PHILADELPHIA 23, PA.

MAKING SPRINGS . . . FOR 101 YEARS!

For more details circle NED-9267 on enclosed inquiry slip

"FLYING SAUCER"

moves light equipment faster over obstacles

This unique new 3 1/16 in. high caster is, literally, a "Flying Saucer".

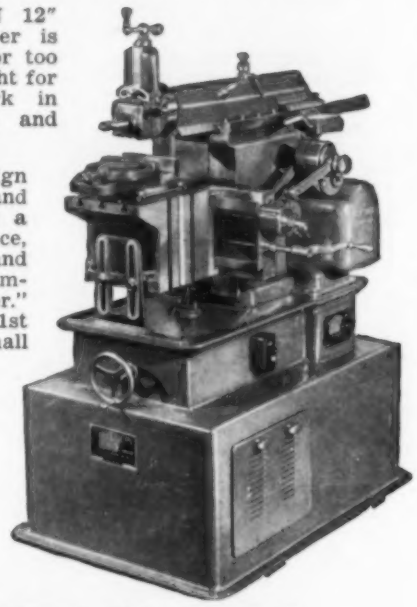
Because it rolls on a 3 in. saucer at a 45 deg. angle, it fairly flies over obstacles and rough, littered floors. An ordinary wheel would have to be twice as big to do this, and would lack this caster's low over-all height that cuts tipping danger.

Ideal for light, low equipment...shoe racks, garage equipment, dollies, laundry racks, etc. Write for free literature. Address any materials-handling problem to the world's largest manufacturer of casters, in all sizes and types. THE BASSICK COMPANY, Bridgeport 2, Conn. Division of Stewart-Warner Corp. *In Canada:* Bassick Division, Stewart-Warner-Alemite Corp., Ltd., Belleville, Ont.

Bassick MAKING MORE KINDS OF CASTERS . . . MAKING CASTERS DO MORE

For more details circle NED-9268 on enclosed inquiry slip

Big Shaper Performance Small Shaper Price



The SHELDON 12" Back-Geared Shaper is neither too big, nor too small. It is just right for most shaper work in most tool rooms and shops.

In weight, design features, capacity and performance, it is a "big shaper." In price, operating cost and floor space, it resembles a "small shaper." It is the logical 1st shaper for the small shop and a cost-cutting tool in multiple installations in large plants.

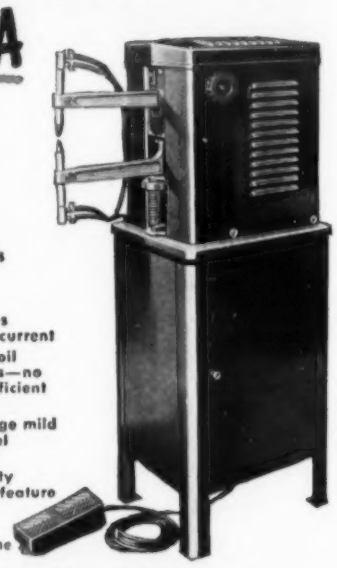
Write for Catalog.

SHELDON
CHICAGO

SHELDON MACHINE CO., Inc., 4215 N. Knox Ave., Chicago 41, Illinois

For more details circle NED-9269 on enclosed inquiry slip

GET UP TO 6000 3-Cycle WELDS PER HOUR with Delta 5-KVA AUTOMATIC Spot Welder



An Ideal machine for sheet-metal contractors, garages, repair shops, and many kinds of light metal fabricators.

- Fully automatic
- Moving primary coil provides infinite variation of welding current
- One-piece solid secondary coil constitutes the welding horns—no loss of power caused by inefficient connections
- Capacity range from 14-gauge mild steel to paper-thin .002" steel shim stock
- Automatic production, quality control and repeat non-heat feature—no product spoilage
- Weld timing precision-controlled—Dwell or Off-Time fully adjustable

There's a Delta Power Tool for Your Job- Wood or Metal Working

53 MACHINES—246 MODELS—MORE THAN 1300 ACCESSORIES
For Delta dealers see your Classified Phone Directory under "Tools"

DELTA MILWAUKEE
DELTA POWER TOOL DIVISION
Rockwell MANUFACTURING COMPANY
617M E. VIENNA AVENUE, MILWAUKEE 1, WISCONSIN

For more details circle NED-9270 on enclosed inquiry slip

NEW, LOW-COST WHITEPRINTER • THE COPYFLEX "20"

Why wait for prints? With the low-cost Copyflex "20" you can quickly make your own prints, *when* you want them—for only 2¢ (average) per sq. ft.! And that includes all costs . . . material, labor, depreciation, etc.

The Model 20 is a completely new, medium volume machine that sells for the *lowest price* of any machine in its class. It handles cut sheets or roll stock up to 42" wide, and delivers completely developed, ready-to-use prints.

It uses no vapor developer, therefore does not emit unpleasant fumes. Simply connect it to a 60 cycle, 115 volt AC power circuit. No trained operator is needed—anyone can operate a Copyflex.

Send today for further information.

BRUNING

CHARLES BRUNING COMPANY, INC., • DEPT. J-111 • 100 READE ST., • N.Y. 13, N.Y.

For more details circle NED-9271 on enclosed inquiry slip

New Literature—Continued

Safety Relief Valves

Farris Engineering Corp.—Operational test data on line of FarriSeal and BalanSeal bellows-type safety-relief valves, as well as data of general interest to engineers and designers of closed safety-relief discharge systems is offered in 34-page manual 51-B. In general, manual proposes an approach to design of discharge header systems based on elimination of back-pressure effects on these valves.

For more details circle NED-9272 on enclosed inquiry slip

Hoisting Towers

Beaver Art Metal Corp.—Tubular steel hoisting towers with "through bolt" system of section assembly and extension are discussed in illustrated 4-page bulletin T-6. Heavy duty tower has 5000-lb load capacity and height limit of 1200 ft while light-duty tower has 3200-lb capacity and 201-ft height limit.

For more details circle NED-9273 on enclosed inquiry slip

Steam Generators

York-Shipley, Inc.—Manufacturing, installation and operating advantages of Steam-Pak packaged steam generators are listed in 12-page brochure No. ID-51-115 which also gives illustrative and descriptive data on this equipment. Operation, specifications and ratings are added details.

For more details circle NED-9274 on enclosed inquiry slip

Copper Pressed Forgings

American Brass Co.—10-page revised edition of reference booklet "Anaconda Die Pressed Forgings" provides comparative illustrations to show what die pressed forgings are and what they can do. It also contains tabulation of physical properties of copper and copper alloys suitable for forgings.

For more details circle NED-9275 on enclosed inquiry slip

Air Cylinders

Rivett Lathe & Grinder, Inc.—Twenty-eight models of air cylinders, each of nine bore diameters, are subject of illustrated catalog Section No. 55. Working drawings and specifications are furnished for each model and size, both standard and cushioned types with single and double end rods, and internal and external threads.

For more details circle NED-9276 on enclosed inquiry slip

Hand Tool Catalog

Snap-on Tools Corp.—Illustration and descriptive copy covering line of over 4000 tools is contained in 104-page catalog TR. Socket wrench equipment, hand tools and wrenches, punches, chisels, screwdrivers, pliers and tool boxes are included, along with specifications. Descriptions are keyed to pictures for easy identification.

For more details circle NED-9277 on enclosed inquiry slip

Controlled Volume Pumps

Milton Roy Co.—Controlled volume liquid pumps with capacities of 50 gpm to 3 milliliters per hour is subject of illustrated, 24-page bulletin No. 151. Four pages of color charts show corrosion resistance of pump-construction materials to over 170 chemicals. Few of many uses for pumps are in chemical, textile, petroleum, food and beverage, pulp and paper and paint laboratories.

For more details circle NED-9278 on enclosed inquiry slip

Difficult Rubber Molding Problem ???

Consult COLONIAL

Colonial Rubber Co. technicians are masters of the art of specialized and individual compounding to meet highly exacting requirements. Whether your problem involves high or low temperature, specific factors in hardness, shear, or tensile strengths, resistance to oil and chemicals—you can trust it with sureness to COLONIAL.

121C

COLONIAL RUBBER CO.
Industrial Rubber Products
RAVENNA, OHIO

For more details circle NED-9279 on enclosed inquiry slip

STOP TRANSMITTING DISEASE GERMS

INSTALL FOOT-CONTROLLED
BRADLEY WASHFOUNTAINS

In a recent issue of the medical journal, Lancet, an article treats on transmission of disease germs, possibly polio, from different persons touching handles to flush toilets. The doctor's suggestion was that *foot pedals* be developed for the purpose.

Bradley, in developing sanitary wash fixtures, recognized this preventive factor. The *foot-control* found on Bradley Washfountains eliminates the possibility of transmitting disease germs. That is why Bradleys have become the standard in factories, mills, institutions, schools.

BRADLEY WASHFOUNTAIN CO., 2253 W. Michigan St., Milwaukee 1, Wis.

BRADLEY washfountains
Distributed through Plumbing Wholesalers

Helpful illustrated Catalog 4701 mailed promptly on request.

For more details circle NED-9280 on enclosed inquiry slip

INCREASE production with these 3 Commander PRODUCTION TOOLS

1

Adjustable MULTI-DRILL

★ Drills Up to 8 Holes At 1 Stroke
★ Adjustable to Any Hole Pattern
★ Fits Any Drill Press

You can drill 2 to 8 holes at one stroke of a MULTI-DRILL equipped drill press. Instantly and easily adjusted to any hole pattern . . . compact in design and ruggedly built for years of service, thousands of MULTI-DRILLS are cutting costs and increasing output up to 800% wherever metal, wood or plastics are drilled.

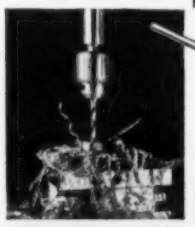
2 Commander TAPPER

★ 1 Tapper Handles Taps #0 to ¾"
★ Automatically Sensitive... Any Operator Can Do Precision Tapping
★ Fits ANY Drill Press

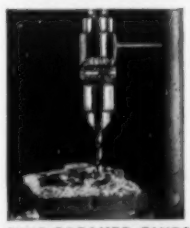
The Tapper that "Thinks for the Operator"

Commander Tappers "think for the operator"—automatically stop when taps are dull, overloaded, or when they strike bottom in blind hole tapping—permit faster tapping, better work, even with inexperienced operators. Torque control provides positive tap protection from #0 to ¾" . . . spring clutch eliminates slippage, assures smooth, quiet, easy operation.

3 Commander DRILL CHIP BREAKER



ORDINARY CHIPS



CHIP BREAKER CHIPS

Gives you reduced drilling costs because you get:

★ Faster Drilling—Drill Speeds increased 100% or more.
★ Deep Holes—8 to 20 times drill dia.
★ Accurate Holes ★ More Holes per hour
★ More Holes per grind

Commander Drill Chip Breakers are equipped with Morse Taper Drivers and ½" chucks.

Write for illustrated Circulars on Commander Production Tools. Your nearby Commander Distributor carries the full line—write for his name.

Commander MFG. CO.
4220 W. KINZIE ST. • CHICAGO 24, ILL.

Products of Commander . . . Builder of Production Tools

For more details circle NED-9281 on enclosed inquiry slip

Dresser-made rings save you machining and material

Dresser's special method makes ring-shaped metal parts with important reductions in raw material and finishing. Sizes 4" to 72" diam.—up to 16 square-inch cross section.

Send for descriptive "RINGS FOLDER"

DRESSER RINGS

Dresser Manufacturing Division, 109 Fisher Ave., Bradford, Pa.
(One of the Dresser Industries)

For more details circle NED-9282 on enclosed inquiry slip

HINGED PLATEGRIP
BELT FASTENER No. 500

For Heavy Conveyor Belts of changing length

These heavy-duty belt fasteners make a strong, flexible joint in conveyor belts, belts of any width and of from 3/8" to 1/2" thickness. They offer special advantages in mines, quarries or industrial set-ups where length of position of belt is frequently changed, because sections can be removed or added at will. Joints are opened for this purpose by simply pulling out the hinge pin.

Easily and quickly applied on the job or in the shop. Special design gives deep compression into belting and smooth, flush joint.

Write for Circular

ARMSTRONG BRAY & CO.
5364 Northwest Highway • CHICAGO 30, U.S.A.

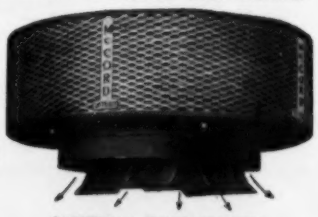
For more details circle NED-9283 on enclosed inquiry slip

Better Heat Distribution WITH McCORD Unit Heaters

HORIZONTAL TYPE HEATER

More Heat . . . Better Distribution

More heat, better distribution is the answer to any heating problem. McCord, because there is a model and type to meet each particular condition, will do a better heating job. Every improvement that engineers and the experience of many users could suggest is incorporated in the improved models of McCord Unit Heaters. Due to the design and careful attention to balance a new degree of quietness has been attained. The scientifically designed spiral fin tube heating surface provides maximum heat transfer capacity.



VERTICAL TYPE HEATER

McCORD CORPORATION
2580 E. Grand Blvd.
Detroit, Mich.

Specify McCORD ON YOUR NEXT JOB

For more details circle NED-9284 on enclosed inquiry slip

New Literature—Continued

Pressure Transmitters

Automatic Temperature Control Co.—Application, operation, ranges, wiring and case diagrams are contained in engineering folders 61, 69, 70 and 71 on Bourdon tube pressure transmitter with 15 to 10,000 psi range; gauge pressure bellows transmitter, 0-10 to 0-200 in. of water; absolute pressure transmitter, 0-50 mm to 0-30 in. of mercury; and differential pressure cell, 0-20 to 0-300 in. of water.

For more details circle NED-9285 on enclosed inquiry slip

Aluminum Spot Welding

Oakite Products, Inc.—Efficient methods of chemically preparing aluminum for spot welding is discussed in 18-page booklet "5 Things to Know About Preparing Aluminum for Spot Welding." Recommendations on materials, procedures and equipment for cleaning, deoxidizing, rinsing and drying are offered.

For more details circle NED-9286 on enclosed inquiry slip

Caustic Soda

Pennsylvania Salt Mfg. Co.—24-page bulletin H-570 entitled "NaOH Caustic Soda" is divided into four sections providing reference for purchasing, handling and storage, equipment design and technical data. Charts and table show chemical properties. Leaflet on "Instructions for Safe Handling of Pennsalt Caustic Soda Tank Cars" is supplemented.

For more details circle NED-9287 on enclosed inquiry slip

Hydraulic Valves

Rivett Lathe & Grinder, Inc.—Included in 28-page illustrated catalog section No. 203 are 138 different models of hydraulic valves, each in varying sizes. Working drawings and specifications are furnished for each size and model valve. Seven sizes from 1/4 to 1 1/2 in. are suitable for pressures up to 1500 psi.

For more details circle NED-9288 on enclosed inquiry slip

Milling Tools & Data

DoALL Co.—Descriptive information and price data on milling cutters, slitting saws, end and shell end mills, keyseat and T-slot cutters are found in 12-page illustrated catalog No. 51-806. Selection aids, tips on regrinding, how to increase tool life by use of soluble oils and information on special cutters are included.

For more details circle NED-9289 on enclosed inquiry slip

Direct-Fired Heaters

Airtherm Mfg. Co.—Installation photos, advantages of direct-fired heating and features of gas and oil fired Airtherm direct-fired heaters are found in 16-page catalog 802A. Horizontal and inverted suspension models are available.

For more details circle NED-9290 on enclosed inquiry slip

Arc Welding Guide

Hobart Brothers Co.—Information on metals and electrodes, types of electrodes, four essentials of proper welding, color marking for electrode identification, types of joints, typical positions, causes of common welding troubles and other reference information is included in pocket size "Hobart Welding Electrodes and Weldors' Vest Pocket Guide" which has 40 pages.

For more details circle NED-9291 on enclosed inquiry slip

Another Opportunity to Save Labor!

HANDLE DRUMS and BARRELS with a SABIN BARREL TRUCK

ONE MAN

Simple to use. Just run truck up to container, hook on at top, and pull back on handle to pick up load. Third Wheel Feature provides better balance and added safety in moving loads.

Handles drum and barrel loads up to 800 pounds, saving cost of one or two helpers.

WRITE FOR BULLETIN on full line of Sabin One-Man Barrel and Drum Trucks.

THE SABIN MACHINE CO.
6536 Carnegie Ave.
Cleveland 3, Ohio

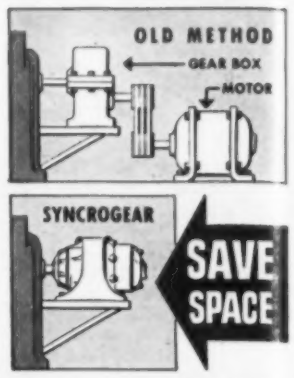
For more details circle NED-9292 on enclosed inquiry slip

SAVE SPACE

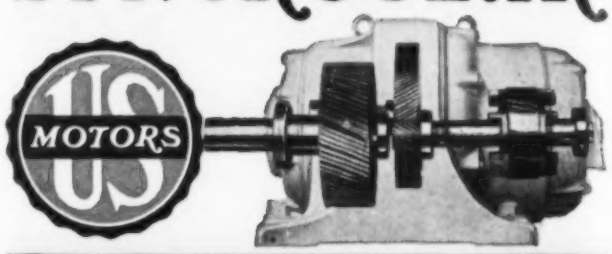
Instead of using an external gear box or old fashioned open belts and chains, now you can install a U. S. Syncrogear Motor with built-in gears. You save space. Gears are fully enclosed and hardened for long-life service. Pyramidal structure insures permanent alignment.

10 to 10,000 RPM
1/4 to 30 h.p.

Write for Bulletin



SYNCROGEAR



U.S. ELECTRICAL MOTORS Inc.
Box 2058, Los Angeles 54, Cal. Milford, Conn.

For more details circle NED-9293 on enclosed inquiry slip

A Better Strainer! —by DAVIS

—with BOLTED CAP

Bolted cap construction is used in sizes from 1 1/2" to 12".

If you think all strainers are alike, ASK THE MAN WHO HAS TO GET INTO THEM! Davis builds strainers with bolted caps, (instead of threaded caps) because numerous engineers have asked for them. It's easier to remove bolts than to try to unscrew a large thread cap after a strainer has been in use. Also makes possible locating blow-off at lowest point; no sediment pocket. Don't confuse Davis precision-made strainers with ordinary pipe fittings. Available in wide choice of types for steam, air, gas, or fluids. Semi-steel, bronze, or steel bodies; screwed or flanged. Pressures to 1500 p.s.i. Brass, stainless or monel trim. Ask for bulletin 100-A.

DAVIS REGULATOR CO.
2531 So. Washtenaw Ave.,
Chicago 8, Illinois

For more details circle NED-9294 on enclosed inquiry slip

See the new Heavy Duty No. 500 Speed Way 1/2" Speed Drill

- All Ball Bearing.
- Wide-face Helical Gears—precision hobbed from nickel alloy steel.
- Integrally Die Cast Aluminum Body and Frame —all structural and supporting members die-cast-in.
- More Powerful Heavy Duty Motor 5 1/2 Amp. input and 1/2 H.P. output.
- No. 34B Jacobs Geared Chuck and finest Electrical Equipment.
- Compact, Powerful, Light—weighs only 10 lbs.

WRITE FOR CATALOG

SPEEDWAY MFG. CO.
1892 So. 52nd Avenue, Cicero 50, Illinois

For more details circle NED-9295 on enclosed inquiry slip

FOLD • SEAL • MAIL

Have You Filled In Your Name and Address?

FOLD TO THIS LINE

To obtain additional information on any items in this issue of NEW EQUIPMENT DIGEST, circle numbers below which correspond with those of desired items. Your request will be forwarded promptly to manufacturer. Please give your name, title, company and address. This postage-free mailer should be folded as indicated for mailing.

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FOLD ON THIS LINE

8545	8595	8645	8695	8745	8795	8845	8895	8945	8995	9045	9095	9145	9195	9245	9295	9345	9395	9445
8546	8596	8646	8696	8746	8796	8846	8896	8946	8996	9046	9096	9146	9196	9246	9296	9346	9396	9446
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8548	8598	8648	8698	8748	8798	8848	8898	8948	8998	9048	9098	9148	9198	9248	9298	9348	9398	9448
8549	8599	8649	8699	8749	8799	8849	8899	8949	8999	9049	9099	9149	9199	9249	9299	9349	9399	9449

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111

NAME ..... TITLE .....

COMPANY ..... Approx. Number of Employees .....

ADDRESS .....

CITY ..... ZONE ..... STATE .....

Principal Products Manufactured .....

Check Invested Capital Rating of Your Company

- ☐ Over $1,000,000
- ☐ $500,000 to $1,000,000
- ☐ $200,000 to $500,000
- ☐ $75,000 to $200,000
- ☐ Under $75,000

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Also send NEW EQUIPMENT DIGEST free to the following men in our company:

NAME ..... TITLE .....

NAME ..... TITLE .....

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BITUCOTE Ready Patch

PREVENT ACCIDENTS

Keep Bitucote Ready Patch on hand, on a "Crash Truck," to repair floor breaks as soon as they occur.
Ready to use—no extras to add
Permanent—Economical
No waiting time—traffic can roll as soon as hole is repaired.

ORDER TODAY
Satisfaction Guaranteed
$90.00—55 gal. drum
$55.00—30 gal. drum
Includes Primer
F.O.B. St. Louis

Send for free bulletin—"Stop Floor Hazards"

Bitucote PRODUCTS
Division of BRIDGES PAVING CO.
1 CENTRAL INDUSTRIAL DRIVE • ST. LOUIS 10, MO.
For more details circle NED-9296 on enclosed inquiry slip

UNBRAKO®

threads are strong, too

with a continuous grain flow that increases tensile strength, shear strength and fatigue life. Threads are held to close limits. All UNBRAKO Screws are being made to #3 thread tolerance—the highest grade of interchangeable screw-thread work. Write for your UNBRAKO Catalog.

Knurled Socket Head Cap Screw

SPS STANDARD PRESSED STEEL CO.
JENKINTOWN 24, PENNSYLVANIA
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Plywood
WOOD OF 1001 USES

Fast 24-Hour Shipping Service from AETNA Plywood's 4 Warehouses

Big Plywood advantages . . .
1. LARGE SIZE PANELS—4' x 8'. Saves labor costs and time.
2. SPLITproof, WARP resistant. Stronger than steel!—(weight for weight.)
3. LIGHTweight, Cuts Easy, Durable. Goes up fast, paints smoothly.

Over 40 species—Fir, Gum, Birch, Walnut, etc. in stock 1/16" to 3" thick, 36" x 48" to 48" x 192".

Encircle NED—or write for FREE Plywood Buying Guide, the Teleply Ticker Price List #535, today.

AETNA PLYWOOD & VENEER CO.
1718 N. Elston Ave., Chicago 22, Ill. ARmitage 6-7100
Branch Warehouses: Grand Rapids 4, Mich.; Indianapolis 21, Ind.; Rockford, Ill.
For more details circle NED-9298 on enclosed inquiry slip

New Literature—Continued

Greaseproof Industrial Flooring

Flintkote Co., Tile-Tex Div.—Resilient greaseproof industrial flooring for manufacturing areas, kitchens, laboratories, cafeterias, process plants, etc. is described in 4-page illustrated bulletin "Tuff-Tex." Highly resistant to traffic, fire, slippage, dirt, shock and liquids, this tile flooring is available in ten attractive colors and can be laid over wood or cement subfloors.

For more details circle NED-9299 on enclosed inquiry slip

Pressure-Sensitive Adhesive Tapes

Kendall Co., Bauer & Black Div., Polyken Industrial Tape Dept.—Consisting of five 8½ x 11-in. file cards in convenient jacket, catalog of Polyken pressure-sensitive adhesive tapes for industrial use contains actual samples of general purpose, electrical, specification and special purpose tapes. Data given on each include description, backing, adhesion, tensile strength, insulation value, dielectric strength and electrolytic corrosion.

For more details circle NED-9300 on enclosed inquiry slip

Universal Welding Jig

Edmands Co.—Illustrated folder gives specifications and prices of Twinner vise which serves as three-dimensional universal welding jig. Angle plates permit clamping of workpieces in any position in three planes to expedite assembly.

For more details circle NED-9301 on enclosed inquiry slip

Mechanical Rectifiers

I-T-E Circuit Breaker Co.—28-page illustrated bulletin 5106 describes mechanical rectifiers for conversion between 50 and 400 v dc. Various features, efficiency, capacities and arrangements for use are covered. Graphs show operating efficiency.

For more details circle NED-9302 on enclosed inquiry slip

Nonfreeze Coil Heaters

Industrial Mfg. & Engineering Co.—12-page illustrated catalog offers specifications, diagrams of installations and other information on heavy duty nonfreeze type coil blast heaters. Use is for manufacturing, process heating and similar applications demanding high steam pressure, continuous duty and entering air below freezing.

For more details circle NED-9303 on enclosed inquiry slip

Wage-Hour Law

Cincinnati Time Recorder Co.—Easy to read and illustrated with cartoons, "In the Dark About the New Wage Hour Law?" answers hundreds of questions that will aid business men in avoiding violation of this law. It defines exempt and nonexempt employees, tells what records must be kept, how to compute wages and lists penalties for violations.

For more details circle NED-9304 on enclosed inquiry slip

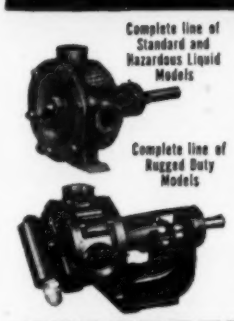
Corrosion Data

Carpenter Steel Co., Alloy Tube Div.—Useful corrosion resistance information for several analyses of stainless steel tubing and pipe is given on 12 x 9-in. wall chart. Corrodents ranging from water and blood to sulphuric and hydrochloric acids are listed with recommended alloys for use with each. Reverse side contains sizes, dimensions, pressures and tolerances for pipe in schedules 5, 10 and 40.

For more details circle NED-9305 on enclosed inquiry slip

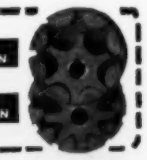
If you're keeping your eye on COSTS you'll insist on

Invader PUMPS



Wherever you use rotary pumps, there is an INVADER Pump that will perform better ...longer. Assure you of pump service never obtainable before—less "down time", fewer replacements, reduced power costs. Will fit your equipment with no expensive changes in piping or mounting.

Rounded tooth design is one of the "inside" reasons why INVADER Pumps last longer ... give better service. The positive seal and rolling contact represent a big improvement over the old-style construction of gear-within-a-gear rotary pumps.



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The SCHIRMER-DORNBIRER PUMP Co.
1719 EAST 39th STREET CLEVELAND 14, OHIO
For more details circle NED-9306 on enclosed inquiry slip

Hanna AIR AND HYDRAULIC Cylinders AND Valves

Here's Power and Control ... for 101 uses

YOU CAN SPEED PRODUCTION, cut costs and simplify the actuation and control of many of your machines and equipment by using the fast, smooth *power of Hanna Cylinders* with the *exacting control of Hanna Valves.*

Hanna Cylinders are available in low pressure models operated by air, oil or water up to 110 p.s.i. and in high pressure hydraulic types operating to 1500 p.s.i., in a range of mounting styles to meet all requirements. There is a complete line of Hanna Valves including hand, foot, solenoid and pilot operated, which provide a wide choice of control.

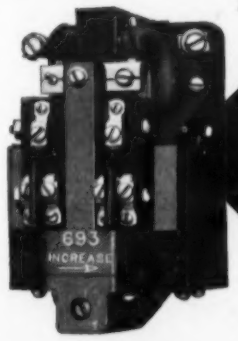
Send for Cylinder catalogs 236 and 233A and Valve Catalog 254.

Hanna Engineering Works
HYDRAULIC AND PNEUMATIC EQUIPMENT ... CYLINDERS ... VALVES ... RIVETERS
1759 Elston Avenue, Chicago 22, Illinois
For more details circle NED-9307 on enclosed inquiry slip

SPLIT-SECOND TIMING!

PNEUMATIC
ELECTRONIC

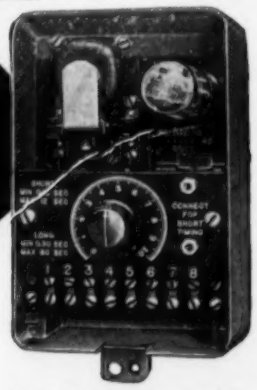
Do you want accurate and dependable timers that are easy to adjust, take small space, and serve many industrial control timing needs? Try these time-tested and proved Cutler-Hammer Timers.



CUTLER-HAMMER BULLETIN 10337 A.C. PNEUMATIC TIMER

We designed this pneumatic timer to cover many of your industrial control timing needs. You can use it on machine tools, conveyors, automatic processing, etc. You will like its small size, 2¾ wide by 4⅞ high, especially where space is at a premium. You can adjust the timing with a screwdriver, from the front. 8 turns of the screw give the entire timing range, from 0.3 seconds to 60 seconds. Reset is practically instantaneous. You can get this timer with one or two timing steps. The two timing steps eliminate the need of one timing relay, and they are independently adjustable.

CUTLER-HAMMER BULLETIN 13522 GENERAL PURPOSE ELECTRONIC TIMER



When you need short or very accurate timing, use this electronic timer. If you want a wide timing range, from 0.15 seconds to 60 seconds, get the standard unit. If you want shorter time settings or narrower ranges for special uses, give us the particulars. The timing adjustment is made by turning the knob of the potentiometer rheostat which has a plainly marked graduated dial. You can mount the rheostat inside the timer case or any place on the machine away from the timer. We build these timers with a heavy duty industrial type relay in the timing circuit. You will like the extreme accuracy of the timer on repeat conditions and in varying air temperatures.

For further information on either timer, write CUTLER-HAMMER, Inc., 1377 St. Paul Avenue, Milwaukee 1, Wisconsin. *Associate:* Canadian Cutler-Hammer, Ltd., Toronto, Ont.

CUTLER-HAMMER MOTOR CONTROL C-H

For more details circle NED-9308 on enclosed inquiry slip

REDUCE SHUT-DOWN PERIODS

Installation of this Syntron SF-01 Screening Feeder reduced shut-down period at the end of each shift allowed for each centerless grinder operator to clean coolant tank. Equipped with a 6" x 15" ¼ mm. zinc screen, the Feeder removes over 90% of the sludge from the grinding coolant. This sludge, consisting of steel filings and abrasive grains, is fed into a receptacle beside the cooling tank. Continuous, automatic sludge removal not only eliminated costly shutdown periods, but also provided cleaner coolant liquid throughout the shift.

SYNTRON
"Vibra-Flow"

SCREENING FEEDERS

For the efficient removal of sludge from coolant liquids used on centerless grinders, automatic screw machines or any type machine requiring a coolant.

Write to

SYNTRON CO.
405 Lexington Ave. Homer City, Pa.

For more details circle NED-9309 on enclosed inquiry slip

FAFNIR Ready-to-Mount Flangette

Money Saving
BALL BEARING DEVELOPMENT

Improved machine design, performance and longer service life at low cost is made possible by this unique Fafnir Ball Bearing Unit incorporating the famous Fafnir Wide Inner Ring Ball Bearing with self-locking collar. It eliminates costly machining where bearings are involved. Makes maintenance easier.

The FAFNIR FLANGETTE — for slow speed applications
1 a completely-packaged ball bearing
2 easy to install — self aligning at assembly
3 lightweight, compact, sturdy
4 bearing protected by Mechaniseals (keep grease in, contaminants out)

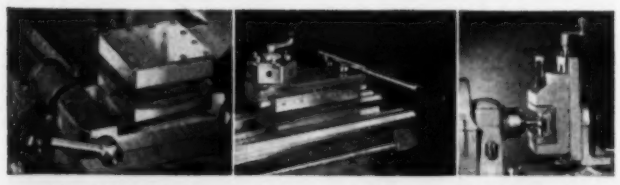
Get complete details. The Fafnir Bearing Company, New Britain, Conn.

FAFNIR
BALL BEARINGS
MOST COMPLETE LINE IN AMERICA

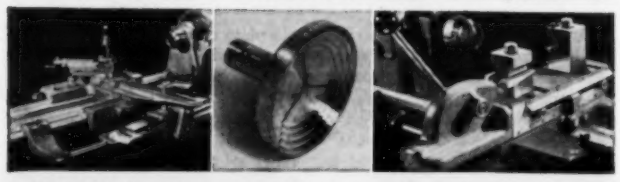
For more details circle NED-9310 on enclosed inquiry slip

Internal Grinder

SOUTH BEND
Lathe Attachments
• Increase Lathe Versatility
• Simplify Difficult Jobs



Turret Tool Block — Handlever Bed Turret — Milling Attachment



Taper Attachment — Step Chuck — Handlever Cross Slide

10-in-1 Tool Holder — Handlever Collet — External Grinder

WRITE FOR CATALOG 5102 SOUTH BEND LATHE
Building Better Tools Since 1906 • SOUTH BEND, INDIANA

For more details circle NED-9311 on enclosed inquiry slip

NEW EQUIPMENT DIGEST
EQUIPMENT • MATERIALS • PROCESSES • DESIGNS • APPLICATIONS • LITERATURE

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Publisher's Notice: We assume no responsibility for the validity of claims in connection with news items appearing in New Equipment Digest. Addresses are given to facilitate further inquiry.

NOVEMBER, 1951

New Literature—Continued

Construction Know-How

Booth & Flinn Co.—Accent is on supervisory personnel, the company's "chief asset," in this brochure. Biographies and portrait photographs of 16 superintendents and foremen, are presented, along with each man's construction specialties and experience. Information of some principal jobs are given.

For more details circle NED-9312 on enclosed inquiry slip

Extruded Plastics

Anchor Plastics Co.—Latest applications of custom-made thermoplastic extrusions are presented in 1952 edition of 8-page illustrated brochure "Extruded Plastics" to help reader visualize uses in his own field. Facilities and range of extrusions available, applications to particular properties and digest of thermoplastic properties are included.

For more details circle NED-9313 on enclosed inquiry slip

Magnetic Separators & Lifting Magnets

Dings Magnetic Separator Co.—12-page illustrated catalog describes line of magnetic separators and lifting magnets used for removing iron from wet or dry materials on conveyor belts, chutes and ducts and for magnetic concentration and purification. Bulletin C-5000-B serves as guide for magnet selection.

For more details circle NED-9314 on enclosed inquiry slip

Steam Generators

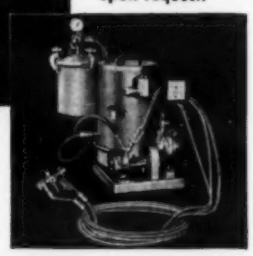
Orr & Sembower Inc.—Information on high or low pressure Powermaster units from 15 to 500-hp ratings for steam or hot water use are described in bulletin 1218. Details on special burner design and changeability from oil to gas firing in minutes are given.

For more details circle NED-9315 on enclosed inquiry slip

SEE HOW GAST explosion-proof rotary AIR MOTORS helped solve this problem!

See our CATALOG in SWEET'S FILE for Product Designers

Gast Application Ideas Booklet—showing 26 design problems solved — sent upon request.



PROBLEM: Specify a motor to drive liquid pump at variable speeds, for Bede Circulating Paint Heater. (A unit for faster, uniform hot finish application.)
SOLUTION: A Gast Rotary Air Motor, running below 500 r.p.m., drives pump at 150 r.p.m. Uses less than 30 p.s.i. air pressure.
RESULT: Power that's economical, dependable, safe. With explosion-proof Gast Motors, entire unit was approved by Underwriters' Laboratories.

Your problem may be entirely different — yet the *unique advantages* of Gast Rotaries may offer just what your product requires. In sizes from 1/20 to 3 h.p., Gast Air Motors are amazingly compact and light in weight. And overloads can't burn them out!

Write Gast, describing your original equipment application. We'll send full details. "Air may be your Answer!"

Original Equipment Manufacturers for Over 25 Years

GAST ROTARY AIR MOTORS • COMPRESSORS • VACUUM PUMPS
(TO THREE H.P.) (TO 30 LBS.) (TO 28 INCHES)
GAST MANUFACTURING CORP., 115 Hinkley St., Benton Harbor, Mich.

For more details circle NED-9316 on enclosed inquiry slip

LOCALITES
for Better Light ON the Job
Directs Light Exactly Where Needed as Easily as Pointing Your Finger

Designed Especially for Machine Tools, and Work on Assembly and Inspection Benches

MODEL 3267-H-174
Overall length 32¾". Three instantly adjustable joints. Flat oblong base for machine screw mounting.
$6.12 EACH in pkg. of 6 Single Units $7.65 ea.

• Rugged Construction to stand strains and shocks
• Instantly Adjustable with full swivel ball and socket joints
• Infra-red Baked Enamel Finish — Exterior, Wrinkled Gray — Reflector Interior, high temperature White
• Reflector accommodates 100 watt A-21 medium screw base lamp
• Wired Complete with switch socket and 8 ft. oil resistant cord

WRITE FOR COMPLETE CATALOG of Localite models with various type reflectors, arms and bases for every industrial use.

THE FOSTORIA PRESSED STEEL CORPORATION
FOSTORIA, OHIO
Localites are available through selected distributors everywhere.

LOCALITE Fostoria for Light ON the Job

For more details circle NED-9317 on enclosed inquiry slip

A Chair Designed to Make History

NEW Clarin TABLET ARM CHAIR that FOLDS

No. 2317-WTA

Will make its mark as one of the most useful adjuncts to portable seating ever devised.

This FOLDING TABLET ARM CHAIR is just the thing for—
SALES CONFERENCES
DEPARTMENTAL MEETINGS
GROUP DISCUSSIONS
LECTURES
TAKING MINUTES,
NOTES, DICTATION, etc.

The arm is an integral part of the chair—NOT AN ATTACHMENT. It may be adjusted to several positions—
1) Raised upright to permit free ingress and egress.
2) Completely lowered to the side.
3) Folded flat against the seat for compact storage.

Doubly Reinforced Steel Frame with Plywood Seat and Solid Wood Arm. Available with Seat only, or Seat and Back upholstered. Rubber Feet prevent noise and marring.

The Only Folding Chair of its kind anywhere.

Write today for folder, prices and delivery data.

CLARIN MFG. COMPANY
4640 W. Harrison St., Dept. 15, CHICAGO 44, ILL.

For more details circle NED-9318 on enclosed inquiry slip

This load of metal coils is an example of the many bulk handling jobs around a plant that can be done easier, faster and at less cost by one man and a Prime-Mover.

THIS IS ONE PLACE IN YOUR PLANT FOR PRIME-MOVER

Fills a real need in bulk handling!

Wherever there is scrap, cuttings, filings, and other clean up jobs, Prime-Mover has the capacity and power to save the time of at least three men. Dependable 5 H. P. Wisconsin engine provides ample power, forward and reverse, to take 20% grades easily, with 1500 pound load. For name of distributor and complete data, write to us.

THE PRIME-MOVER COMPANY
MUSCATINE, IOWA

The Bell PRIME-MOVER

For more details circle NED-9319 on enclosed inquiry slip

Bin Stuck Lately?

Don't ruin your Bins

Vibrate them with a TYPE F

CLEVELAND AIR VIBRATOR

• Steel Chips . . . Dry Colors . . . Concrete . . . Fertilizer . . . Sand . . . Coal . . . Soap . . . Sawdust . . . Vegetables . . . Chipped Ice . . . Meat . . . Candy . . . Wood Chips . . .

Or any other 'granulars' free up fast with a Type F Cleveland AIR Vibrator. Eliminate plugged or arched conditions. Write for Catalog No. 105 for complete details.

THE CLEVELAND VIBRATOR COMPANY

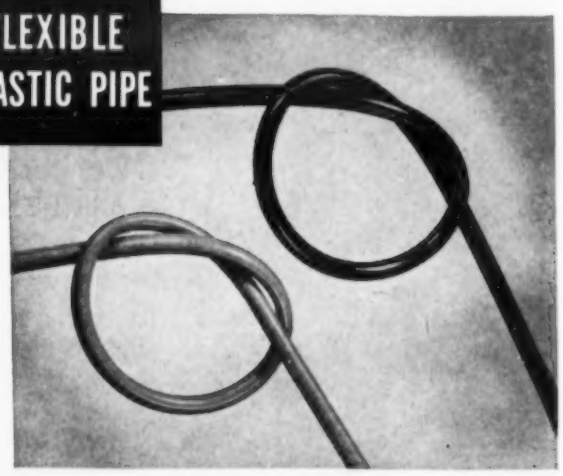
2745 Clinton Ave. • Cleveland 13, Ohio

For more details circle NED-9320 on enclosed inquiry slip

JOHNSONITE

FLEXIBLE PLASTIC PIPE

Here is the quality Plastic Pipe that can be tied in a knot, is 13 times lighter than ordinary pipe and is used everywhere. Corrosion-proof; acid-resistant; low-cost; excellent insulation material; lasts over 30 years; and easy to install.



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Plating industry	Well installation	Chemical Processing
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JOHNSONITE Rigid Plastic Pipe is also available for special applications.

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P. O. BOX 268 • CHAGRIN FALLS, O.

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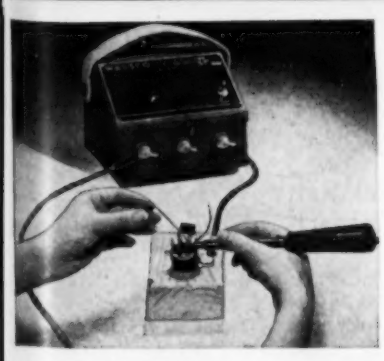

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WASSCO GLO-MELT SOLDERING UNIT

HERE IS THE NEW, LOW-COST ANSWER TO BETTER, FASTER SOLDERING, silver soldering and brazing in the automotive repair shop—for generators, electrical systems, radios, radiators and many other jobs. The Wassco Glo-Melt is ideal for the finest precision work as well as the hard-to-heat heavier jobs. You choose from 2 heat selections for exacting heat control!

Operating on the conduction principle, the Glo-Melt can be grounded directly for individual jobs—or through a simple jig or fixture for fast, efficient "production line" work. A carbon "pencil" tip, held in the light hand piece, is touched to the part and instantly glows to a red soldering heat. Flux core wire solder is applied and a perfect joint is made.

The Glo-Melt is simple, fast, economical—ideal for 1001 soldering jobs—to replace slow, antiquated soldering methods.

Get full information and prices today on this outstanding soldering unit.

Inquiries From Jobbers and Representatives Invited!

WASSERLEIN MFG. CO., INC.

126 W. CASS ST. • JOLIET, ILL.

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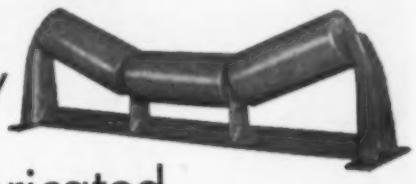

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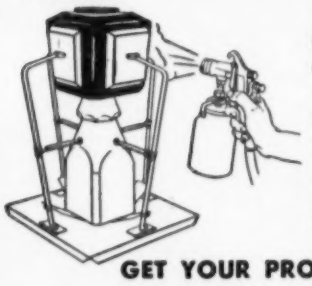

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CONVOY, INC.

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Write for Bulletin No. 501

SKINNER ELECTRIC VALVE DIV.
THE SKINNER CHUCK COMPANY
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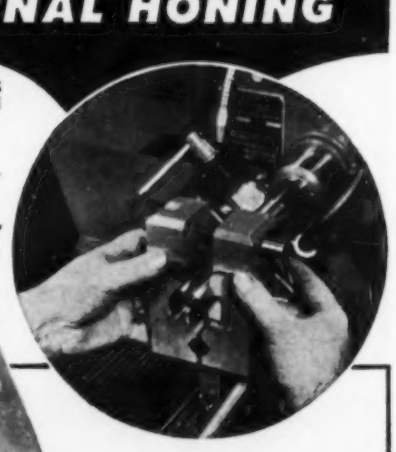

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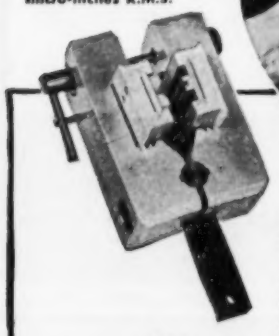

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SEND FOR FREE BULLETIN describing the operation and advantages of Sunnen External Hones.

SUNNEN PRODUCTS COMPANY
7964 Manchester Ave. • St. Louis 17, Missouri

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Jam-packed with cost-cutting, efficiency-boosting characteristics, the Johnson Joint offers exciting possibilities you should know about. It's a packless, self-lubricating and self-adjusting way to get heating or cooling agents in or out of rotating machine parts; used on calenders, dryers, ironers, mills and similar machines. There are hundreds of design and production problems for which it holds the perfect answer.

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The Johnson Corporation
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Fingertip Control Handles Tons of any Product

A touch of the magic button raises tons of material to moving height in seconds. Forward and reverse control buttons are two-speed . . . controls operate from any position, including vertical.

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REG. U.S. PATENT OFFICE

For Efficient Handling of Shelf Merchandise or Materials Stored Out of Reach.

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Savings thru efficiency will quickly return their low cost.

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If your dealer cannot supply order from factory.

THE ALLEN MANUFACTURING CO.
P. O. BOX 15-A MIAMISBURG, OHIO

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FOR PRODUCTION AND TEST EQUIPMENT

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AUTOMATICALLY starts—stops—cycles—times on schedule from a minute to a week in advance!

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Precision-built, compact, dependable. Provides up to six circuits for accurate timing in advance. Indispensable for positive control of equipment and processes. Self-regulating; develops 24 volts DC and 24 or 115 volts AC to trip relays, switches; control secondary clocks, time recorders; sound signals. Operates on regular 115 volt AC. Write for literature, or see your Cincinnati distributor.

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1733 Central Ave. Cincinnati 14, Ohio
Pioneer in Development and Manufacture of Time Control Equipment Since 1896

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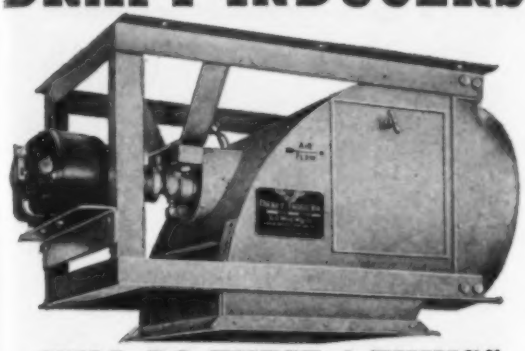
Wing

DRAFT INDUCERS



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1. Eliminate tall, unsightly and expensive stacks.
2. Cuts fuel costs. Higher CO_2's.
3. Smoking reduced or eliminated.
4. Increases capacity.

Write for Bulletin

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If you'd like to have access to a complete source of Freon Cooler calculations, then this pk manual is for you!

Some of the subjects, Tables, Charts, and Data Sheets: • Selection of dry expansion type Freon Coolers • Surface required per ton of refrigeration • Direct reading log mean temperature difference table • Cooler selection data sheets • Freon Cooler dimensions and data (single and two circuit) • Typical piping and control arrangements

the pk Patterson-Kelley Co., Inc.

121 Burson St., E. Stroudsburg, Penna.

1103

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To know your Strippers, you have first to know about your paint and all of the conditions of its application—we've learned that the problem of Stripping has as many ramifications such as 1. types of paint, 2. number of coats, 3. basis metal and/or surface treatment, 4. air or force dry . . . With all of these variables involved, there, of course, is no one Stripper that can take care of any and all jobs. That is why we say we have learned, in most cases, that it requires a laboratory examination of your paint to determine which product (compound) applies before a satisfactory operation of Stripping can be set up . . . Write for complete information regarding this or any other metal cleaning problem.

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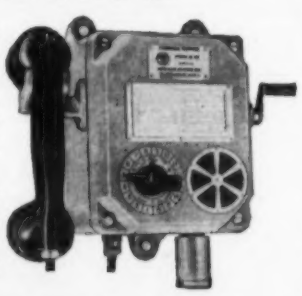

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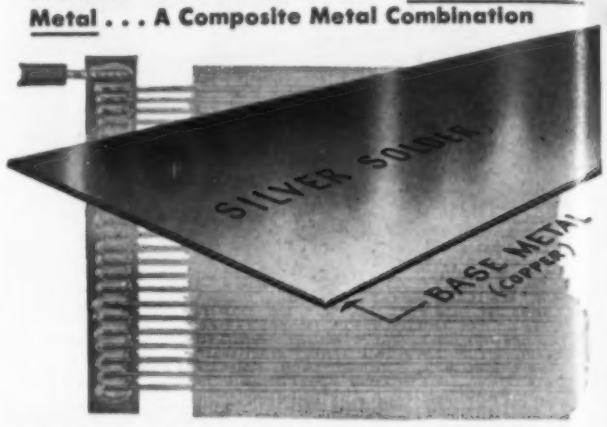

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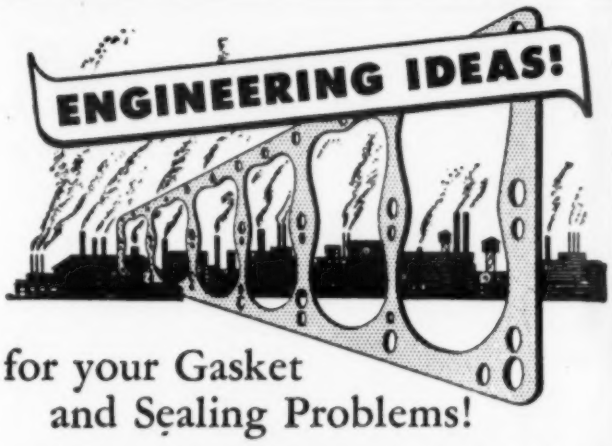

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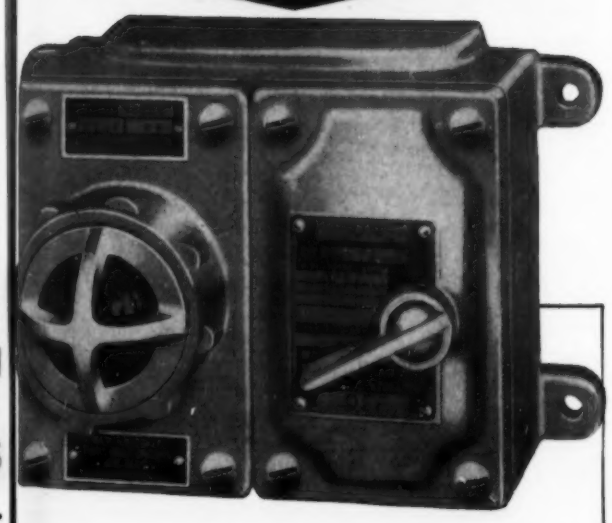

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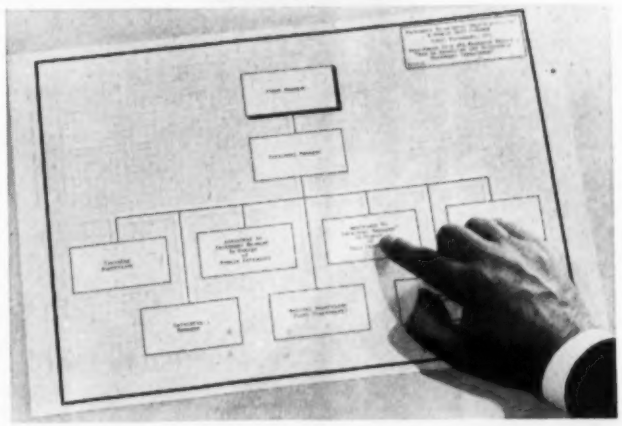


A good organization chart lets everyone know what is expected of him. If your chart needs bringing up to date, or if you have no such chart CHART-PAK can help you.

CHART-PAK has developed a new method of chart making that is simple and easy. No draftsman is needed. We furnish you with the prefabricated materials and the accessories for applying them. With these materials you or your secretary can then quickly make first-class organization charts from your rough sketch.

"Draftsman drawn" rectangles, lines, and arrows are printed on self-adhesive stock. These are mounted on a reusable board printed with non-photographic guide lines on a special surface which permits easy removal. For multiple use photographs or other reproductions can be made with perfect clarity.

CHART-PAK also provides complete materials for making statistical charts and office layouts. Send for descriptive brochures.

CHART-PAK, INC.
104-B Lincoln Avenue Stamford, Conn.
For more details circle NED-9349 on enclosed inquiry slip

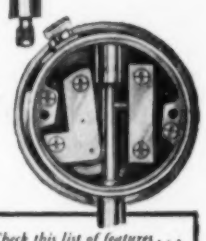
steel coming up . . .

costs going down for Modern

Modern Tool & Die, Inc., Cleveland, Ohio, has followed its name in providing *modern* handling facilities for its workers. Shown above is the 7½-ton completely power controlled traveling crane which handles raw stock into storage and delivers it as needed to the machine bays. In addition Modern uses a 5-ton traveling crane to cover transport and assembly handling requirements in the machine bay and four R & M "J" hoist equipped jib cranes for handling stock into and out of the machines and for use in assembly work of completed components. "Modern" reports—no maintenance problems—handling costs away down over previous methods—and all production men from die makers on down welcoming the efficient, always ready help that gives them more time on their machines—less costly time muscling dies and parts around. Perhaps some features of this successful R & M installation answer your handling problem. Your nearby R & M representative has detailed data on this and many other cost and time saving R & M installations ready to help apply them to handling cost reduction in your plant. Write for Bulletin N11D.

TAKE IT UP WITH
ROBBINS & MYERS INC
HOIST AND CRANE DIVISION, SPRINGFIELD 99, OHIO
For more details circle NED-9350 on enclosed inquiry slip

Modern Design SPEEDS PRODUCTION

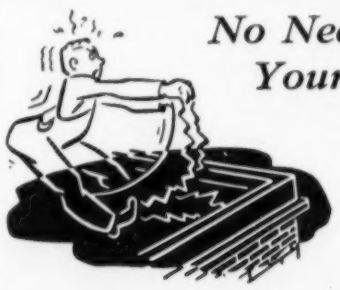


● Ames micrometer dial indicators are the most modern available today — and naturally so because Ames policy for over 50 years has been continually to improve design, to take advantage of new materials and to utilize the most advanced manufacturing methods. They are a real aid to the quality control engineer who is trying to keep pace with today's high production schedules.

Because Ames Indicators are functionally designed, they have fewer parts than ordinary indicators. Construction is simple with functional parts being larger and more rugged and adequately supported. Operational friction is at a minimum. Thus, Ames Indicators combine extreme sensitivity and accuracy with the ability and endurance *to stay right on the job longer.*

√ *Check this list of features . . .*
1 Forged Solid Brass Case and Stem
2 Heavy Brass Plate
3 Coarse Pitch Stainless Steel Rack
4 Hardened and Burnished Steel Pivots
5 Dials Printed from Steel Engravings
6 Patented Bezel Assembly

Representatives in principal cities. B. C. AMES CO. 54 Ames Street Waltham 54, Mass.
Mfgr. of Micrometer Dial Gauges • Micrometer Dial Indicators
For more details circle NED-9351 on enclosed inquiry slip



No Need to Rip Up Your Old Roof
WHEN YOU USE
STONHARD ROOF RESURFACER

The best and most economical way to protect your factory roof areas from the winter siege is to cover them with either STONHARD LIQUID or PLASTIC ROOF RESURFACER . . . *Just Brush or Trowel On.* No heating . . . no mixing of ingredients . . . used right from the container and easily applied by your own maintenance men. STONHARD ROOF RESURFACERS are suitable for *any type roof.* They bond securely, will not run, crack or peel. Find out now how to save your roofs. Mail the coupon below today.

STONHARD COMPANY
Building Maintenance Materials Since 1922
101 Stonhard Bldg., 1306 Spring Garden Street, Phila. 23, Pa.

Send data on STONHARD Roof Resurfacers: 101/11/51
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Company .....
Address .....
City ..... Zone ..... State .....

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RECLAIM METALS!

this Easy Way

WITH A

Stearns MAGNETIC SEPARATOR

You can clean brass, bronze, aluminum turnings and other secondary metals from iron and steel particles efficiently and economically with a STEARNS "LLP" Magnetic Separator.

Here's a typical installation at the Allis-Chalmers Mfg. Co. where brass shavings are quickly processed by a STEARNS Magnetic Separator to eliminate steel chips. The reclaimed brass is sent to the foundry and the steel chips sold as scrap.

Write today for descriptive literature on this permanent magnetic separator—continuous, automatic separation at practically no expense.

Foremost in the Magnetic Field

Stearns MAGNETIC INC.

653 S. 28th St., Milwaukee 46, Wis.

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ALL METAL LIQUID SOLDERING FLUX

New liquid aluminum soldering flux makes possible sweating on aluminum, stainless steel, monel, copper, brass, steel or any combinations of same. The newly developed liquid chemical actually breaks the surface oxide on all types of aluminum so that a sweat job is possible in the same manner as ordinary flux on the common metals. Called Liquid ASMC Flux it makes possible the soldering together of such dissimilar metals as stainless steel to aluminum or any combinations of the above metals to aluminum or each other. When used in combination with Farrelloy All Metal Solder the Flux eliminates the electrolytic action between dissimilar metals so that a permanent bond, highly resistant to corrosion is obtained. ASMC Flux makes possible the use of induction heat as well as torch or iron. Production jobs using induction heat are now being accomplished putting two brass studs on Aluminum Name Plates at the rate of 250 per hour. Same flux when used with Farrelloy Solder is equally effective on filling in blow holes in aluminum castings, sweating name plates on cast iron, and many other jobs. ASMC Flux is priced at $3.50 per pound, fob Philadelphia. Farrelloy Solder $2.00 per pound, fob Philadelphia (14 bars to the pound). Write **Farrelloy Company, Dept. NED.** 1246 North 26th St., Philadelphia 21, Pa. *Advt.*

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RUBBER

Parts and Products

Acushnet PROCESS COMPANY

NEW BEDFORD, MASS., U. S. A.

We have complete modern equipment and specialized engineering skill to precision-mold mechanical rubber parts or products to your specifications.

Address all correspondence to 782 Belleville Ave., New Bedford, Mass.

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PNEUMATIC SCALE unit will weigh up to 10,000 lb

Designed for batch weighing or continuous process control, the F-C air scale weight transmitter converts variable force or weight into a measurable pneumatic signal. Operating on force-balance principle, device is used with standard instruments to indicate, record or control weight or force. Transmitter is completely enclosed and requires no electricity even for remote indication. Explosion hazard is thus minimized in chemical, food processing, milling, glass and similar fields. Scale "balances out" tare allowing net weight to be indicated. Unit shown occupies less than 1 cu ft of space and has capacity of 10,000 lb. Sizes are available to weigh up to 40 tons and higher on special order. Made by **Fluid Controls Co.,** Dept. N, 5150 Ridge Ave., Philadelphia 28, Pa.

▲ For more details circle NED-9357 on enclosed inquiry slip ▲

DISTRIBUTION PANELBOARD incorporates circuit breakers

Standard 120 and 240-v ac circuit breakers from 15 to 100 amp with one, two and three poles are plugged onto silvered bus bars of type MHP distribution panelette to complete desired arrangement. Thermal magnetic two-way protection is provided by breakers. Thermal trip elements hold harmless momentary overloads. Four standard basic devices are available. Assortment of knockouts and ample wiring are provided. Circuit arrangement can be altered to suit changing needs. Made by **Square D Co.,** 6060 Rivard St., Detroit 11, Mich.

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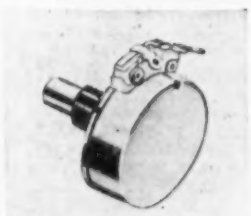
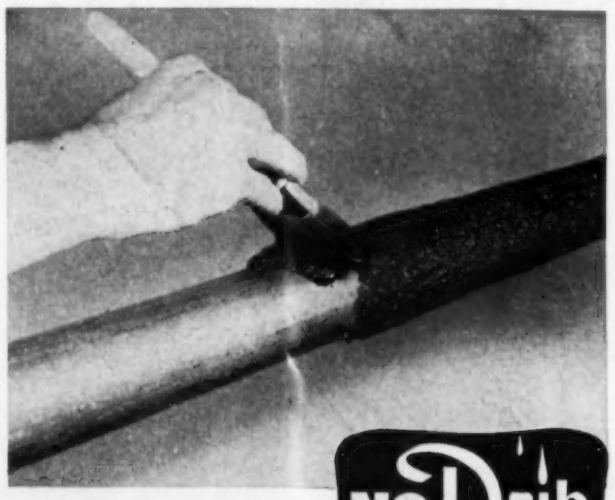
VARIABLE RESISTOR withstands wide temperature range



Characteristics of CTS type 90 variable resistor include ability to withstand temperatures from −55 to 150° C and conditions from very dry to saturation humidity. Resistor has diameter of 15/16-in. and rating of 1 w at 70° C with 500 v maximum across end terminals. Resistor is available with locking bushing, high torque and water sealed bearings and mounting. Straight tandem and concentric shaft tandem constructions are available with panel and rear sections operating separately from concentric shafts. Made by **Chicago Telephone Supply Corp.,** 1210 W. Beardsley Ave., Elkhart, Ind.

▲ For more details circle NED-9359 on enclosed inquiry slip ▲



COVER PIPES TANKS, WALLS

NoDrip

Anyone can brush, trowel or spray NoDrip on any clean, dry surface. Goes on like plaster, forms a seamless, protective coating, STOPS CONDENSATION DRIP.

NoDrip keeps equipment and floors safe and dry; prevents corrosion of metal and prolongs its life. Acid, alkali and brine resistant. Comes in 1, 5 and 55 gal. drums, ready for use.

TRY NoDRIP—Apply NoDrip to a small area, compare the results with uncovered portions.

Send for NoDrip Handbook

J. W. MORTELL CO.

526 BURCH ST. KANKAKEE, ILL.

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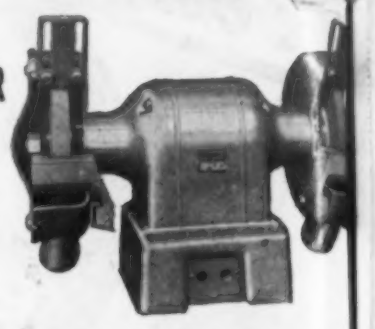
BENCH GRINDING PROBLEMS

SWITCH TO BLACK & DECKER POWER!



BLACK & DECKER BENCH GRINDERS
4 models, 6" to 10" wheel diam., ¼ to 1 H.P.

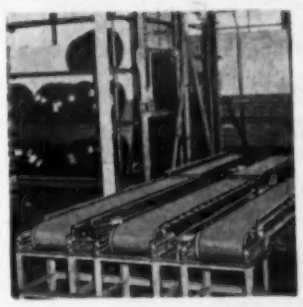
B&D BENCH GRINDERS sharpen chisels, twist drills, and edged tools; handle many types of grinding and metal removal; remove rust; clean dirty, gummy parts; buff and polish plated metal surfaces. Many features to *speed up* work: dependable B&D-built "constant speed" motors; streamlined design for more work clearance; adjustable U-shaped tool rests for better support; strong steel wheel guards for extra safety. **SEE YOUR NEARBY B&D DISTRIBUTOR** for a demonstration. Write for free catalog to: THE BLACK & DECKER MFG. CO., 662 Pennsylvania Ave., Towson 4, Md.

LEADING DISTRIBUTORS EVERYWHERE SELL

Black & Decker PORTABLE ELECTRIC TOOLS

▲ For more details circle NED-9361 on enclosed inquiry slip ▲

★ Move Pallets More Efficiently with Alvey-Ferguson Conveyors!



Here's the efficient way to move loaded pallets from floor to floor. Photograph at left shows an A-F Loading Conveyor on which loaded pallets are placed by lift trucks. When operator switches on current, pallet is conveyed to conveying carrier at rear (see photo at right) then carried to floor above, where pallet is conveyed out to lift truck. Operation, automatically controlled by limit switches, may be reversed. For the very latest information on handling your product more efficiently, write today.

THE ALVEY-FERGUSON CO.

39 Disney St., Cincinnati 9, Ohio

Office or Representatives in Principal Cities

CONVEYING EQUIPMENT

Alvey-Ferguson

WASHING MACHINES FOR INDUSTRY

▲ For more details circle NED-9362 on enclosed inquiry slip ▲

TAMP ←

TRUCK OVER →

NO WAIT FOR DRYING

HERE'S THE QUICKEST, BEST WAY TO PATCH BROKEN FLOORS

Use durable INSTANT USE . . . a tough plastic material which you simply shovel into hole — tamp — and run traffic over immediately. Tough INSTANT-USE is ideal for repairing cracks and breaks due to relocating machines . . . or for complete overlays. NOTE: Plasticizer makes INSTANT-USE easy to scoop out of container . . . easy to level, easy to tamp, to use! *There's a Flexrock material for every floor condition — oil, acid, wet, dry! Tell us your problem!*

MAIL COUPON for TRIAL OFFER and HANDBOOK OF BUILDING MAINTENANCE

INSTANT-USE

FLEXROCK COMPANY Offices in Principal Cities

3603 Filbert St., Phila. 4, Pa.

Please send me complete INSTANT-USE information, details of TRIAL ORDER PLAN and HAND BOOK OF BUILDING MAINTENANCE—no obligation. (Clip and attach Coupon to Co. letterhead).

Name .....

Company .....

Address .....

▲ For more details circle NED-9363 on enclosed inquiry slip ▲